DOCUMENT RESUME

ED 070 825 VT 018 019

TITLE	New York State Annual Report for Occupational Education (July 1, 1971-June 30, 1972).
INSTITUTION	New York State Education Dept., Albany. Office of Occupational Education.
PUB DATE	72
NOTE	108p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Adult Education; *Annual Reports; Developmental Programs; Elementary Grades; Goal Orientation; Post Secondary Education; *Program Descriptions; Secondary Grades; *State Programs; *Statewide Planning; Statistical Data; Visual Aids; Vocational Development; *Vocational Education
IDENTIFIERS	*New York State

ABSTRACT

This New York State annual report for the fiscal year 1972 describes the State's attainment of the objectives of its 1972 state plan for administering vocational education programs. A statistical overview of the current status of occupational education in New York State precedes the descriptions of program developments and accomplishments. Data were compiled from statistical reports, annual reports from the directors of area vocational centers, colleges and urban centers, and from state records of those units responsible for vocational education programs. The five major sections of this report are: (1) elementary and early secondary, (2) secondary, (3) post secondary, (4) adult, and (5) multilevel. Each section, except for the multilevel section, is further subdivided into three population groups served at each instructional level: (1) general, (2) disadvantaged, and (3) handicapped. Highlights of exceptional or model programs and two charts giving the geographical distribution of federal funds are presented. Various tables and graphs present the data. (AG)

FILMED FROM BEST AVAILABLE COPY

ED 070825

new york state annual report for occupational education

fiscal year 1972

VT018019

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Office of Occupational Education
Albany, New York 12210

ED 070825

THE UNIVERSITY OF THE STATE OF NEW YORK
The State Education Department
Office of Occupational Education
Albany, New York

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

NEW YORK STATE

ANNUAL REPORT FOR OCCUPATIONAL EDUCATION

July 1, 1971 - June 30, 1972

INTRODUCTION

The New York State Annual Report for Occupational Education, Fiscal Year 1972, contains a narrative description of the State's accomplishments in terms of the objectives of the Fiscal Year 1972 State Plan for the Administration of Occupational Education under the Vocational Education Amendments of 1968, as well as important statistical information concerning the status of occupational education in the State during the fiscal year.

All information concerning accomplishments of State Plan objectives is organized into five major sections, according to the instructional level of persons served: ELEMENTARY AND EARLY SECONDARY, SECONDARY, POST-SECONDARY, ADULT, and MULTILEVEL. Except for the multilevel section, each major section is further subdivided into three population groups served: GENERAL, DISADVANTAGED, and HANDICAPPED. Throughout the report, descriptions are included of specific programs and services which exemplify ways in which resources were utilized to accomplish objectives. Additional descriptions of specific programs and services are included in the section entitled HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS.

Information concerning accomplishments of objectives for the narrative portion of the report was compiled from: statistical reporting data; annual reports furnished by directors of occupational education in the six major cities and BOCES area centers; materials from public 2-year colleges, urban centers, and the Bureau of 2-Year College Programs in the State Education Department; and from records of various State Education Department units with responsibility for occupational education.

The activities in the State Plan relating to the elementary level, and the activity under the secondary level dealing with early secondary career orientation and exploration, have been grouped together in the Annual Report under the ELEMENTARY AND EARLY SECONDARY section. This section describes progress in developing and implementing a career education continuum, which provides all students with continuous exposure to the world of work in order to cultivate more positive attitudes and to create awareness of the wide variety of occupational opportunities.

Major accomplishments described in the SECONDARY section include: opening of new buildings or sections of buildings at five BOCES area centers, and allocation of funds for the construction of facilities at two area centers and two community colleges; addition and expansion of occupational programs, primarily in the manpower shortage areas of distribution, business and office, health, construction occupations, and child care services; development and expansion of occupational information, guidance and placement services, including the employment of placement and followup coordinators in 10 BOCES area centers and the cities of New York, Albany, and Syracuse; addition of cooperative work stations in almost every area center and major city offering cooperative programs; increased coordination and articulation of secondary and post-secondary programs; expansion of distributive and office education programs in the local schools; further development of programs and techniques for disadvantaged students, such as flexible scheduling, programming, and multioccupational curriculums designed to create and maintain student interest; and the addition of cooperative work experience and job adjustment program components, as well as new teacher coordinators and occupational guidance personnel, to serve handicapped secondary youth.

At the post-secondary level, significant accomplishments include: official opening of LaGuardia Community College, where all students are provided with cooperative work experiences as part of their educational program; addition of 26 new curriculums and the expansion of 68 existing programs, particularly in the areas of health, business and office, and trade, industrial, and service education; adoption of the practice of coordinating guidance and counseling functions with developmental skill programs in reading and mathematics to assist students in successfully completing their occupational programs; authorization of 20 proprietary institutions to confer the associate in occupational studies degree in approved 2-year programs; initiation of five new articulation projects between 2-year colleges and secondary agencies; involvement of occupational teachers and guidance personnel in a wide range of inservice education programs; addition of 24 guidance counselors at public 2-year colleges; introduction of cooperative work experience as an integral part of the occupational curriculum, especially for disadvantaged students; further development of remedial programs and serivces; increased efforts to plan and implement programs including supplementary services for handicapped occupational education students; and progress in conducting five major research and evaluation activities specifically related to post-secondary occupational education.

Major accomplishments described in the ADULT section include: continued efforts to provide flexible scheduling arrangements which allow adults to enroll in day or evening programs according to their other responsibilities; addition of programs to upgrade the skills of employed adults, particularly in the health manpower shortage area; development of programs to meet specific needs of local businesses or industries; establishment of new related work experience programs for apprentices in cooperation with local unions; more intensive counseling and diagnostic testing of out-of-school youth and high school dropouts, especially in geographic areas with high unemployment; progress toward the establishment of organizational structures for comprehensive continuing education programs through the employment of 10 full-time adult occupational coordinators; development and expansion of specialized short-term and comprehensive consumer and homemaking programs designed to meet the needs of disadvantaged adults in economically depressed areas; introduction of programs which provide migrant workers with the opportunity for more career choices; and the implementation of two inservice pilot projects for teachers of adult occupational education.

The MULTILEVEL section describes accomplishments in terms of objectives which have bearing on two or more educational levels. These objectives concern administration, curriculum development, research, planning, evaluation, and the development of exemplary projects. Some of the accomplishments described in this section are: initiation of a project to identify minimal and optimal job competencies required for business and office occupations; continuation of the development and implementation of a coordinated program planning, budgeting, and evaluation system for occupational education; operation of two Research and Development Institutes where special research studies are conducted, and consultive services provided which relate to needed change in the field of occupational education; continued operation of an evaluation service center for occupational education (ESCOE) data "bank" which contains behavioral objectives and coorelated test items for various occupational education programs; further implementation of a mini research grant concept, which provides funds to local agencies for projects which have immediate impact on local conditions; and expansion of the modular design in curriculum materials to facilitate meeting individual student needs.

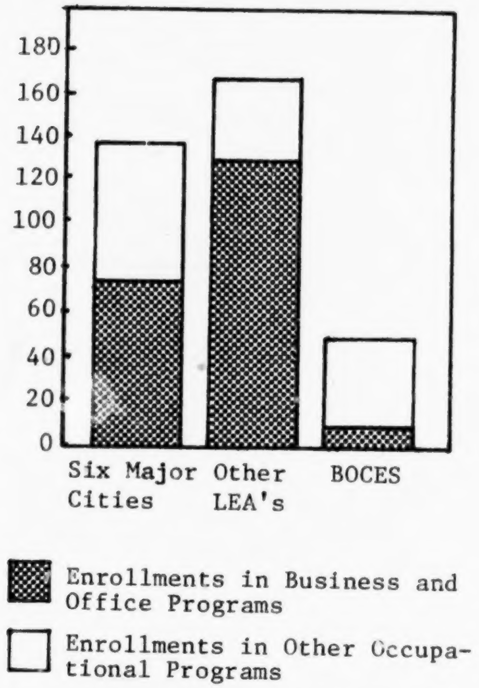
This introduction has summarized highlights of the narrative portions of the Fiscal Year 1972 Annual Report. The section which follows provides a statistical overview of the State's program of occupational education in fiscal year 1971-72, in terms of the numbers and characteristics of students served.

STATISTICAL OVERVIEW

During the 1971-72 school year, more than 500,000 students were served in secondary, post-secondary, and adult occupational education programs in the public local educational agencies (LEA's), in area occupational education centers operated by the Boards of Cooperative Educational Services, and at 2-year public colleges and urban centers.

Secondary occupational education programs served nearly 350,000 students. Forty percent of the secondary students were enrolled in the six major cities of the State--New York City, Buffalo, Rochester, Syracuse, Yonkers, and Albany. Outside the major cities, 163,115, or 47 percent of the total secondary enrollment, were served in programs operated by local educational agencies, and 47,278, or 13 percent, in programs operated by the BOCES. It should be noted that 78 percent of the LEA enrollment was in business and office education programs, which are a standard part of the curriculum in nearly every secondary school of the State. Excluding business and office education, 53 percent of the occupational education enrollees outside the six major cities were served by BOCES. Occupational education enrollment at BOCES increased by 28 percent from 1971-72, reflecting the trend toward sharing of resources and services among school districts which find it economically unfeasible to offer a comprehensive occupational education program.

SECONDARY OCCUPATIONAL EDUCATION ENROLLMENT (In Thousands)

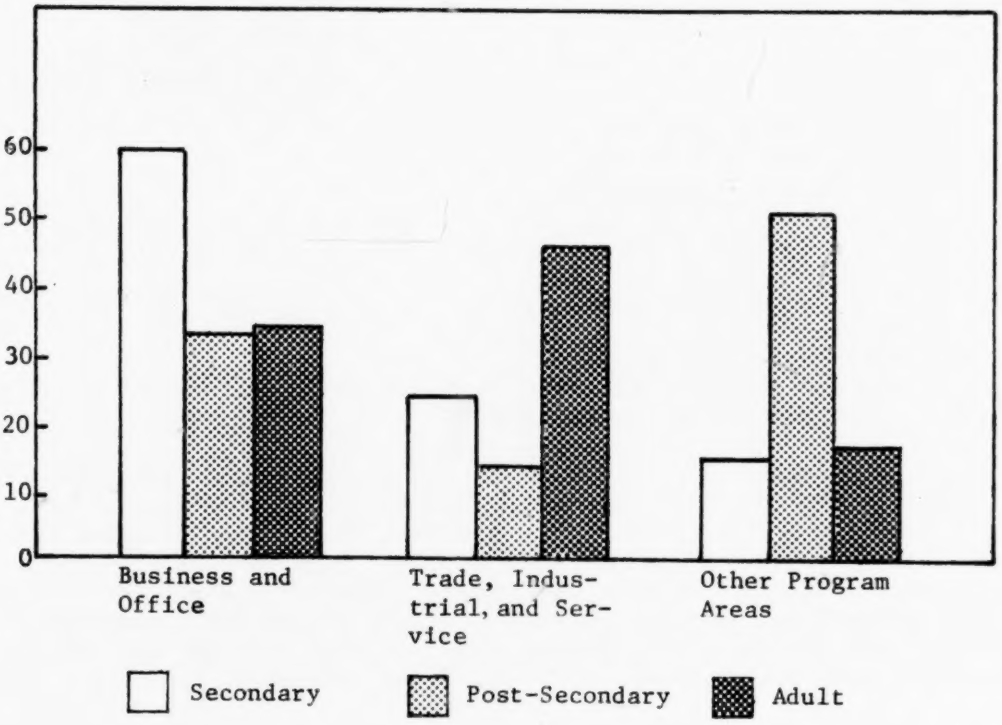


Over 130,000 adults were served in occupational education programs. The largest share of the adult enrollment was served in the six major cities. Of the 91,165 adults enrolled in secondary agencies, the cities accounted for 75 percent of the adult supplementary students, 71 percent of the apprentices receiving related instruction, and 63 percent of the total adult enrollment. Other local educational agencies served 21 percent of the total enrollment, and the BOCES the remaining 16 percent. Public 2-year colleges and urban centers also served 35,105 adults in occupational programs.

Community colleges and 2-year agricultural and technical colleges served 62,883 students in post-secondary occupational programs. Over 96 percent of these enrollees were in degree programs.

Sixty percent of the total secondary occupational enrollment was in business and office education. Trade, industrial, and service programs accounted for an additional 24 percent, with the remaining 16 percent of secondary occupational students distributed among the other five program areas--agriculture, distribution, health, home economics, and technical. Adult enrollees were concentrated in the same two program areas. Forty-seven percent of adult occupational education students were enrolled in trade, industrial, and service programs and 34 percent in business and office programs. Post-secondary students were more evenly distributed among the seven program areas, although business and office education accounted for about one-third of all occupational enrollees at that level.

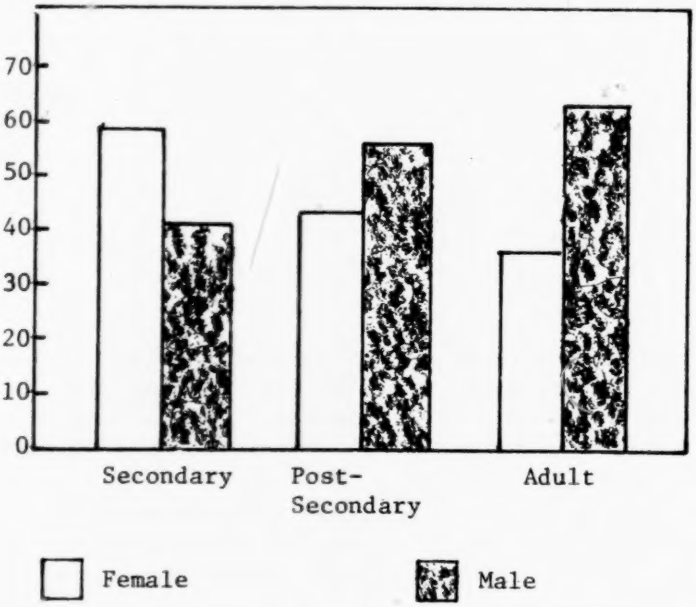
PERCENT OF OCCUPATIONAL EDUCATION ENROLLMENT
IN BUSINESS AND OFFICE; TRADE, INDUSTRIAL,
AND SERVICE; AND OTHER PROGRAM AREAS
BY LEVEL OF INSTRUCTION



Secondary occupational education enrollments were 59 percent female. This was due primarily to the high enrollment in business and office programs, which were about 78 percent female. Females also accounted for more than three-quarters of the enrollment in health and home economics programs, while males dominated trade, industrial, and service; technical; and agricultural programs. BOCES programs, however, serving fewer students in business and office education, were 62 percent male.

OCCUPATIONAL EDUCATION ENROLLMENTS
BY SEX AND LEVEL OF INSTRUCTION

Percent of Total Enrollment



At the adult level, where enrollments in trade, industrial, and service programs exceeded those in business and office, 63 percent of the students were male. Apprentice programs, in particular, were male-oriented; about 97 percent of apprentices receiving related instruction were male.

Post-secondary occupational programs also served a majority of males. Unlike the secondary and adult levels, post-secondary business and office programs served about as many males as females. Enrollments in the next two largest program areas, technical and trade, industrial, and service, were over three-quarters male; overall, 56 percent of post-secondary occupational enrollments were male.

Minority group participation rates in secondary occupational education programs were consistent with their representation in the entire public school enrollment. Blacks accounted for 15.3 percent of secondary occupational students and 15.5 percent of the total public school enrollment, grades K-12. Overall, minority group members (blacks, Spanish Surnamed Americans, American Indians, and Orientals) represented 26.9 percent of the secondary occupational enrollment and 25.4 percent of the total public school enrollment.

Adult programs enrolled a slightly smaller proportion of minority group members--23.4 percent. In adult programs providing related instruction for apprentices, only 11 percent of the students were minority group members. Only 6.2 percent of post-secondary occupational enrollees were members of minority groups.

Minority group enrollments were concentrated in the six major cities. Eighty-six percent of the secondary minority group enrollment and 90 percent of the adult minority group enrollment were served in these cities.

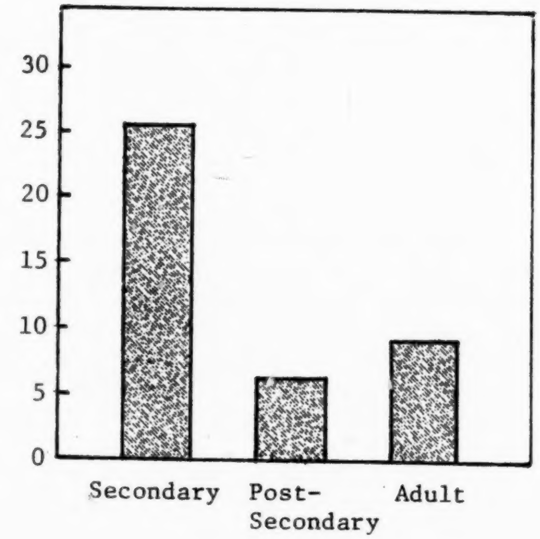
PERCENT OF OCCUPATIONAL EDUCATION
ENROLLMENTS WHO WERE MEMBERS
OF MINORITY GROUPS
BY LEVEL OF INSTRUCTION

	Secondary	Post-Secondary	Adult
Black	15.3	4.1	14.9
Spanish Surnamed American	8.7	1.5	7.4
American Indian	1.8	.1	.1
Oriental	1.1	.5	1.0
Total--All Minority Groups	26.9	6.2	23.4

Special needs students comprised about 27 percent of the secondary occupational enrollment. During the 1971-72 school year 88,756 disadvantaged and 7,012 handicapped students were served. Disadvantaged students were concentrated in the six major cities--83 percent of all disadvantaged secondary enrollees were in these cities. Handicapped students, however, represented a larger proportion of the occupational enrollment in other areas of the State. Of the handicapped students served outside the six major cities, 78 percent were served in BOCES programs.

Adult and post-secondary occupational programs served a lower proportion of special needs students. About 8 percent of adult students were disadvantaged, with the great majority (71 percent), as at the secondary level, served in the six major cities. Over 95 percent of the urban center enrollment, however, was disadvantaged. Only about 6 percent of the post-secondary enrollment was disadvantaged. Handicapped students accounted for 0.2 percent of the adult enrollment and 0.9 percent of the post-secondary enrollment.

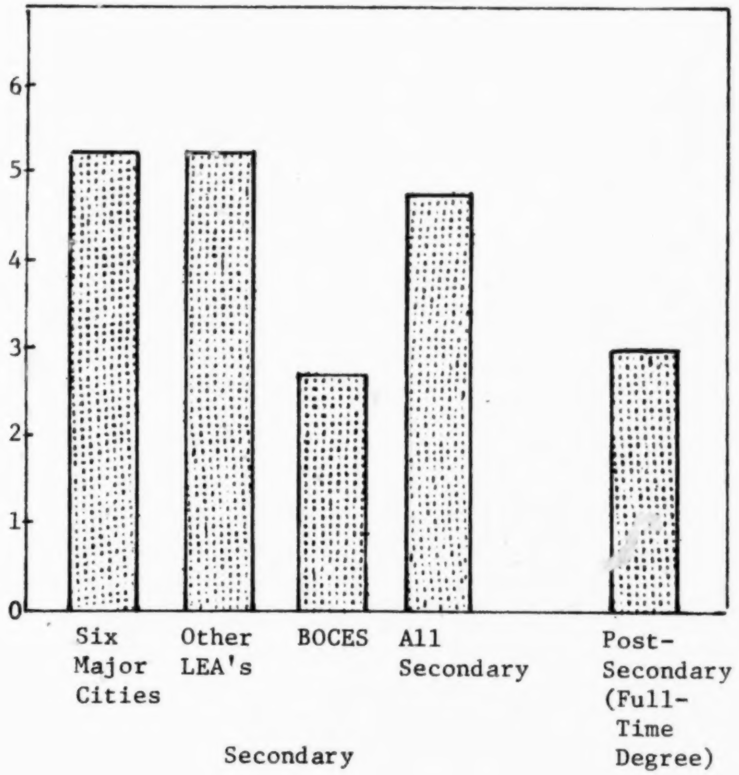
PERCENT OF OCCUPATIONAL
EDUCATION ENROLLMENTS
WHO WERE DISADVANTAGED



Disadvantaged enrollments were most concentrated in health occupations programs at both the secondary and adult levels. Over half of the secondary and over a third of the adult health occupations enrollees were disadvantaged. The distribution across the seven program areas of post-secondary disadvantaged students and handicapped students at all levels roughly paralled the distribution of general students.

Cooperative work experience programs served 18,520 occupational students during the 1971-72 school year. About 4.8 percent of secondary and 3.0 percent of post-secondary, full-time degree, occupational students participated in cooperative programs. Most cooperative students were enrolled in business and office or distributive programs: 73 percent at the secondary level; 84 percent at the post-secondary level. The greatest concentration of cooperative enrollments was in distributive education. Cooperative programs accounted for about a fourth of the secondary distributive enrollment and 22 percent of the post-secondary distributive enrollment.

PERCENT OF OCCUPATIONAL EDUCATION ENROLLMENTS
WHO WERE IN COOPERATIVE WORK EXPERIENCE PROGRAMS



SUMMARY OF ENROLLMENTS IN OCCUPATIONAL EDUCATION
(1972)

	Secondary	Post-Secondary	Adult
Agriculture	12,712	2,674	3,034
Distribution	17,800	5,902	4,825
Health	11,798	12,650	8,403
Home Economics (Gainful)	3,747	1,882	1,030
Home Economics (Useful)	295,208	-	78,051
Office	209,087	20,447	44,315
Technical	14,468	9,627	7,431
Trade & Industry	83,897	9,701	61,232
Total	648,717	62,883	208,321

	Secondary	Post-Secondary	Adult
Black	99,310	2,572	33,922
Sp. Srnm. Am.	56,153	971	17,181
American Indian	11,591	69	293
Oriental	6,943	310	2,310
Other	474,720	58,961	154,615
Cooperative	16,718	1,802	-
Regular	631,999	61,081	208,321
General	463,666	58,348	154,162
Disadvantaged	177,960	3,966	53,918
Handicapped	7,091	569	241
SMSA	538,460	47,284	184,456
Central City	258,740	27,877	130,037
Non SMSA	110,257	15,599	23,865
Apprentice	-	-	12,600

SUMMARY OF EXPENDITURES FOR OCCUPATIONAL EDUCATION
(1972)

TOTAL	FEDERAL	STATE AND LOCAL
$328,653,372	$33,816,266	$294,837,106

CONTENTS

PROGRAM DEVELOPMENTS AND ACCOMPLISHMENTS

Page

ELEMENTARY AND EARLY SECONDARY 1

SECONDARY, General 9

SECONDARY, Disadvantaged 30

SECONDARY, Handicapped 39

POST-SECONDARY, General 42

POST-SECONDARY, Disadvantaged 54

POST-SECONDARY, Handicapped 57

POST-SECONDARY, Multipopulation 58

ADULT, General 61

ADULT, Disadvantaged 67

ADULT, Handicapped 74

MULTILEVEL 76

HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS 90

GEOGRAPHICAL DISTRIBUTION OF FEDERAL FUNDS 96

Program Developments and Accomplishments

ELEMENTARY AND EARLY SECONDARY

For purposes of clarity and continuity, all activities relating to elementary and early secondary career orientation and exploration have been grouped together under the following goal, although these activities were originally divided between the elementary and secondary sections of the 1972 State Plan.

- Goal: Provide students in all grades with continuous, extensive, and direct exposure to the world of work, in order to cultivate more positive attitudes toward work and to create awareness of the wide variety of occupational opportunities in the modern economy.

Accomplishment

During 1971-72, approximately 300,000 students in grades 7-8 and 190,000 students in grades 9-10 were served in traditional prevocational programs in the areas of industrial arts, home economics, business, and agriculture. However, as described below, major emphasis during the fiscal year was on developing a more comprehensive, interdisciplinary approach to occupational orientation and exploration for students at all educational levels, with particular emphasis on the elementary and early secondary grades.

Description

In 1971-72 New York State initiated major efforts to develop the early childhood-adult continuum of occupational programs and services called for in the Regents position paper on occupational education. The enthusiastic reception given the position paper throughout the State was reinforced by the strong advocacy of the career education concept by the United States Commissioner of Education and other educational leaders. By the end of the 1972 fiscal year, steps had been taken in every region of New York State to make career awareness, orientation, and exploration a conscious purpose of every school and classroom.

At the State level, the effort began with the formation of an occupational orientation and exploration committee composed of representatives from the instructional, planning, and supervisory units of the Office of Occupational Education, as well as research, guidance, and curriculum personnel from other Department offices. Committee members devoted approximately 20 percent of their work time for nearly a full year to reviewing the literature, examining current provisions for occupational orientation in New York State schools, discussing alternative strategies for implementing more effective approaches, preparing guidelines for schools seeking to implement orientation programs, and identifying components of a potentially effective program design.

In August 1971, the committee brought together a group of leading teachers, administrators, and guidance personnel for a weeklong mutual review of the work in progress. Largely as a result of the outcomes of this workshop, it was determined that the State would forego development of a prepackaged design for career orientation and exploration, and seek instead to encourage and assist the schools of the State in developing a variety of approaches suitable to their particular structures, needs, and means. At the same time, it was recognized that the committee should continue to refine a set of broad guidelines to ensure that local programs are developed in accordance with the principles outlined by the Regents in their position paper. A major department role was also identified in such areas as inservice education, design of career-related curriculum modules for use within a variety of program settings, and dissemination and sharing of information regarding the effectiveness of alternative approaches, both in New York State and other states. In accordance with this philosophy, during the latter part of the fiscal year the committee consulted with a number of school districts and BOCES which expressed interest in planning and implementing career education strategies.

In April 1972, the State Education Department issued a set of guidelines for the planning and development of career education in New York State. The guidelines identify the Regents position paper as the source of guiding principles for a career education focus throughout New York State. They specify that career education activities should be measurable in terms of behavioral objectives for approximate key ages of students as set forth in the position paper. The guidelines emphasize the importance of developing teacher understandings of career concepts, and integrating career concepts throughout all curriculum areas, rather than establishing special courses and special "career education" teachers. The guidelines conclude with a list of specific conditions under which Federal funds will be utilized to support career education proposals. These conditions include assignment of priority to area/regional planning and development activities and to proposals which indicate development of activities over a broad spectrum of the educational process, e.g. K-6, K-9, K-12. Another major condition is involvement during the planning stage of key representative persons concerned with the successful implementation of career education, such as: school superintendents; directors of occupational education; elementary and early secondary administrators and teachers; curriculum specialists; guidance counselors; parents; teacher educators; and persons in business and industry.

During the fiscal year, a grant was awarded for the planning and development of a kindergarten through post-secondary career education model in New York City. This model, which is being developed in accordance with the guidelines described above, involves a selected number of elementary and secondary schools as well as the Fashion Institute of Technology.

As the fiscal year ended, proposals had been received from nearly every region of the State, including the six major cities, for the planning and development of career education activities. Approved proposals will be funded from the State's fiscal 1973 VEA allocation.

A number of orientation and exploration projects were funded or underway prior to the distribution of career education guidelines by the State Education Department. The Buffalo "Open Door to the World of Work" project was initiated with VEA support in 1969, as a K-12 developmental career guidance program, with the objectives of developing a more mature appreciation of the personal and social implications of becoming a worker, and increasing understanding of the specific tasks required for getting and maintaining employment. The project has served approximately 3,000 elementary, junior high school, and senior high school students during its 3 years of operation. Activities developed for pupils, parents, and staff have included: classroom instructional activities based on a K-9 career resource guide prepared as part of the project; educationally planned field trips related to classroom instruction; construction of three career resources centers for use by students, teachers, and community residents; inservice education for project staff; supportive services for classroom teachers, including consultant services provided by the project counselors, resource people from the world of work, and instructional materials for classroom use. Successful outcomes of the "Open Door" project include: impact on influencing inner-city black students to see occupational education as a viable avenue to career choice; effective use of community outreach personnel; and successful involvement of the community in influencing the educational process. The career resource guide developed through this project will be used to implement an expanded career education program in Buffalo schools during 1972-73.

During the fiscal year, Buffalo also initiated an exploratory business education course for eighth graders at Fillmore Middle School. The curriculum includes field trips to various industries and classroom visits by guest speakers representing various industries.

The city of Niagara Falls received a grant to establish an Office of Career Development and Occupational Information, which will be responsible for coordinating efforts to utilize all available community resources in developing a comprehensive system of occupational education. Emphasis will be placed on developing positive attitudes toward occupational education and career development among teachers and administrators, and on developing relevant curriculum materials and instructional techniques for classroom use. An existing area industry--education council will serve as an advisory body, assuring community involvement. Provisions are made for participation of neighboring school districts which share the goals of the project.

In addition to planning of a career education model, as described above, New York City reports that 26,000 elementary and early secondary students were involved in organized career orientation and exploration activities during the fiscal year. For example, the Clinton "School Without Walls" program helps disadvantaged junior high school students to develop an awareness of occupational opportunities within the city. Through the cooperation of 20 participating institutions, students have been exposed to onsite observation of the workings of major industries. A close relationship with professionals and skilled craftsmen on job sites has helped to remotivate many disaffected youngsters and to enlarge their occupational perspectives. Thirty units have been offered in the 20 participating institutions including: computer skills at Western Electric; textile merchandising at Celanese Corporation; auto mechanics at Port of New York Authority; television production at CBS-TV; and photography at the Young Filmmaker Foundation, the Floating Foundation of Photography, and Western Electric.

In another New York City program--Mobile Industrial Technology Laboratories--17 elementary schools in Community School Districts 9, 20, and 29 received the benefits of tryout experiences provided by three mobile technology laboratories. This early exposure has helped to stimulate interest in academic and occupational learnings for 45 classes with approximately 1,350 students. The mobile laboratory units, equipped with tools and machines, expose elementary school students to the techniques of industry in such occupational areas as woodworking, metal working, graphic arts, plastics, ceramics, electronics, and drafting.

The Mid-Hudson Career Development and Information project, initiated together with the Buffalo "Open Door" project as a career development and guidance model, completed its third and final year of VEA supported operation. Successful outcomes of the seven county project have included: development of curriculum materials for career orientation in the elementary grades; testing of these materials in classrooms of pilot districts, expanded from two to four in fiscal 1972; a college level course in developing career awareness at the elementary level, offered at the State University College at New Paltz, in addition to short-term inservice presentations for schools within the project service area; development and testing of a guide for infusing career development concerns within the early secondary curriculum; inservice workshops for approximately 100 counselors in the seven county area in application of the "data-persons-things" approach to the use of regionally prepared occupational information materials; and demonstration of effective involvement of industry in influencing the educational process. Industry involvement has included summer work experience opportunities for elementary teachers, to orient them to current industrial needs and conditions. Copies of the elementary curriculum materials developed through the Mid-Hudson project have been distributed upon request and at cost to 48 states and 14 countries, in addition to wide distribution within New York State.

The widespread impact of the career education concept is reflected in the end-of-year reports submitted by directors of occupational education at the BOCES area centers and in the six major cities of the State. In addition to the planning activities described above, most area center directors report expanded efforts to familiarize elementary and early secondary students and faculty in their service areas with career opportunities, as well as opportunities for occupational preparation at the BOCES themselves. These efforts have included expanded programs of tours and visits to area center facilities, increased visitation to local schools by BOCES personnel, and new and expanded career information resources which are shared with component schools.

At Suffolk County BOCES #2, involvement of younger students begins with the housing of some prekindergarten classes for disadvantaged children with the area centers. The prekindergarten children provide laboratory experience for secondary child care students of the BOCES. Here, in the hub of secondary occupational education programs, children receive firsthand and positive impressions of activity associated with skill acquisition. While not specifically planned as an educational experience for the prekindergarten children, the exposure gives them their first exploration into the world of work.

Nassau County BOCES emphasizes the importance of occupational students themselves as a medium for transmitting career-related information to their peers and other members of the community. The Nassau BOCES has been experimenting for 2 years with career awareness programs for elementary and early secondary age students who attend the Special Education Division, and the outcomes of these experiences are expected to be of use to component school districts in serving other children. The BOCES has also conducted inservice courses for staff of Nassau County junior and senior high schools to provide them with an opportunity to become acquainted with area occupational education and its value to Nassau County youth, whether they are planning immediate entry into the labor market or post-secondary education. Forty-five persons--including junior and senior high school counselors, high school nurses, and guidance chairmen--received certificates of completion during the 1972 fiscal year, bringing the total number of completions to 127.

Allegany BOCES staff, in cooperation with personnel from Wellsville Division of Alfred Agricultural and Technical College, developed and televised a series of 24 programs on careers. The programs were aired on local television stations, and will be available to high school counselors for career education programs.

Each of the six major cities reported activity in the elementary and early secondary area. Selected New York City and Buffalo programs have been described above. The city of Albany reported visits by an occupational guidance counselor to all ninth grade classrooms, to present slides, films, lectures, and other information about occupational education offerings. In Yonkers, both Saunders Trade and Technical High School and Commerce High School served ninth graders for the first time in occupational exploration programs in carpentry, automatic heating, auto shop, electric wiring, machine shop, secretarial practice, data processing, distributive education, cosmetology, dress design, and food services. Altogether, 275 ninth graders were served in these exploratory units. Rochester reported a number of orientation and exploration activities. Most notably, career education instruction was provided for 4,100 students in the multioccupation laboratory. These students ranged from grades 5 through 12, and represented all the city school district secondary schools and some elementary schools.

The city of Syracuse has developed a guided occupational orientation program to serve both elementary and junior high school students. The elementary program, involving grades 5 and 6, is in operation for its second year and is directed towards increasing the child's awareness of the world of work and its composition. This is an 8-week unit which includes: learning about job families; visiting the career center at George Washington School, which houses displays developed and installed by local industry and public agencies; and finally, a day in a mobile skill van which provides actual job settings in several areas such as health, manufacturing, and office work. Here, the students have an opportunity to engage in hands-on activities in the various career areas represented and to identify skill requirements.

The junior high program, "Careers Unlimited," is an individualized approach to career study, integrated into four basic subject areas of English, social studies, mathematics, and science. Initially, this involved a general orientation to the world of work which included such topics as income tax, social security, fringe benefits, job applications, and interviews. This was followed up by giving the students in seventh, eighth, and ninth grades the opportunity to explore the career cluster of their choice and its necessary preparation. Student activities included participating in field trips, interviewing workers and representatives of business and industry, gaining information from audiovisual and written materials, and doing independent projects.

One segment of this program is particularly innovative. The Department of Rehabilitation Medicine of the Upstate Medical Center and the Syracuse City School District have joined together to offer students a realistic work orientation and information program within an industrial complex--that of the Medical Center itself. A pilot project run the year before indicated that certain disadvantaged students who were identified as potential dropouts, having demonstrated an inability to benefit from school programs available to them, did gain occupational skills and appropriate social goals when involved in a specially tailored program at the Medical Center. The current plan will involve approximately 100 selected ninth grade students and expose these students to a variety of occupations on all levels as well as first hand information regarding training, hours, entry, and advancement steps for these positions. The wide scope of occupations found within the microcity, which is the Medical Center, range from plumbing and carpentry to cancer research and administration, enabling students to broaden their knowledge of the world of work and expand their own occupational choices.

Together with teacher education and curriculum development, guidance is a major component of any career development program. State Education Department guidance personnel are testing a proposed career development plan for use in working with school districts in the planning and development phase of implementing career guidance. Primary emphasis is on a systematic approach to infusing decisionmaking and personal--social skills associated with work environments into the career guidance program. Four school districts--Guilderland, Schenectady City, Scotia-Glenville, and South Colonie--were worked with on a pilot basis during fiscal 1972. Skills in systems approaches to problem solving were taught to a multidisciplinary team from each school district. An assessment of career knowledge concerns in each community will be completed, as well as an assessment of students' career knowledge, as aids to each district in its planning.

As a basis for future planning and development work, Nassau County BOCES was awarded a research grant late in fiscal year 1971, to review the structure and content of present occupational education offerings at the early secondary level and recommend any necessary changes to more realistically meet the occupational needs of students. Ten school districts in Nassau County were selected for the review--two central school districts, two districts with large student populations, two with small student populations, one wealthy school district, one middle class school district, and two school districts in areas of poverty concentration. On the basis of their findings, the investigators have developed recommendations for incorporating career dimensions within the various curriculum areas in grades 7-10, as well as recommendations concerning preparation of boards, teachers, parents, and others whose support is essential for implementation. A final report on this project will be completed in October 1972.

- Goal: Strengthen the consumer-family living learnings in grades 5 and 6.

Objective

Increase the number of students in grades 5 and 6 who participate in consumer-homemaking activities.

Accomplishment

A total of 15,688 students in grades 5 and 6 participated in consumer-homemaking activities in 1971-72. Prior to fiscal year 1972, enrollment data for these grades were not complete.

Description

Special projects in Newark, Guilderland, Lyndonville, and East Syracuse were developed to explore effective ways of teaching consumer skills to fifth and sixth grade general and disadvantaged students.

The programs generally focused on providing real life experiences through the use of resources in the community. Visits were made to retail businesses and industries, permitting students to question and examine the production and sale of merchandise. This type of exposure to marketing practices increased the ability of students to make sound consumer decisions. Other types of field trips included ecology camp, which emphasized consumer-homemaking skills related to food, shelter, clothing, and personal relationships.

At the sixth grade level, class members were responsible for analyzing subjects such as mass media advertising for oral presentations to fifth graders over closed circuit television. This technique was implemented to give students the opportunity to question intelligently, as well as form and verbalize opinions.

Disadvantaged youth were given special assistance in consumer and homemaking programs. Basic mathematics and reading were combined with consumer and homemaking instruction for slow learners and many children from resettled migrant families who had missed years of formal schooling.

SECONDARY

GENERAL

- Goal: Serve the increasing numbers of public secondary students who need and desire occupational education by providing diversified programs designed to meet manpower needs.

Objective

Increase the total number of public secondary students enrolled in occupational education from 290,944 in fiscal year 1971 to 350,000 in fiscal year 1972.

BOCES Centers	*43,000*
Six Major Cities	*150,000*
Local Education Agencies	*157,000*

Accomplishment

According to the Occupational Education Data Subsystem, 349,982 students were enrolled in occupational education during fiscal year 1972: 47,278 in the BOCES centers, 139,589 in the six major cities, and 163,115 in the local education agencies.

Description

The availability of occupational education offerings was increased during the past year through the opening of new buildings or sections of buildings in: Monroe County BOCES #2, both centers of Delaware-Chenango-Madison-Otsego BOCES, Essex County BOCES, and Orange-Ulster BOCES.

Occupational education enrollments were also increased as a result of the addition and expansion of programs in existing facilities. A total of 14,566 students were served in new and expanded occupational education programs during fiscal year 1972. Of this total, 7,243 were enrolled in new programs; 4,229 in BOCES centers, 1,527 in the six major cities, and 1,487 in the local schools. Expanded programs served 7,323 students; 1,705 in the BOCES centers, 3,934 in the six major cities, and 1,684 in the local education agencies.

The students were served in 234 new programs and 110 expanded programs. Of the new programs; 172 were in the BOCES centers, 19 in the six major cities, and 43 in the local schools. Of the expanded programs; 53 were in the BOCES centers, 20 in the six major cities, and 37 in the local schools.

The following table indicates the number of new and expanded secondary programs under each program area, and the enrollments resulting from each.

New and Expanded Secondary Programs and Enrollments
Fiscal Year 1972

Table 1

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Agricultural Mechanization		1		25
Conservation		4		160
Ornamental Horticulture	4	6	104	135
Agricultural Production		1		60
Total Agriculture	4	12	104	380
DISTRIBUTION				
General Merchandising, General Sales, or Sales-Supporting	19	8	720	400
Advertising Services	1	4	25	180
Distribution Cooperative	3	2	75	300
Total Distribution	23	14	820	880
HEALTH				
Prevocational Curriculums	2		137	
Dental Assisting	5		100	
Dental Lab Technology	2		31	
Medical Lab	4		44	
Nursing, Licensed Practical	10		274	
Nurse Assisting	12		202	
Home Health Assisting	4		33	
Medical Assisting	4		85	
Surgical Technician	1		8	
Other Health	2		62	
Total Health	46		976	
HOME ECONOMICS				
Prevocational Curriculums	2		70	
Care and Guidance of Children	8	5	175	181
Food Management, Production, and Services	5	12	162	474
Clothing Management, Production, and Services	1		11	
Institutional & Home Management, and Supportive Services	4	3	67	69
Home Furnishings, Equipment, and Services	1		55	

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
Other Home Economics	3	1	62	23
Total Home Economics	24	21	602	747
BUSINESS & OFFICE				
Prevocational Curriculums	5	10	540	665
Bookkeeping and Accounting	3	6	63	201
Data Processing	7	6	309	296
General Office--Clerical, and Typewriting	9	13	538	1,180
Stenographic, Secretarial, and Related Occupations	7	5	81	1,044
Supervisory and Administrative Management	1	1	24	18
Business & Office Cooperative	9	1	360	43
Total Business & Office	41	42	1,915	3,447
TECHNICAL				
Aeronautical Technology	2		68	
Total Technical	2		68	
TRADE, INDUSTRIAL, AND SERVICE				
Prevocational Curriculums	8	6	332	1,235
Air-Conditioning, Refrigeration, and Heating	11		222	
Appliance Repair	3	2	59	89
Automotive Services	9	5	234	189
Commercial Art	4		89	
Construction and Maintenance Trades	10	3	306	218
Drafting	5		66	
Electrical Occupations	4		86	
Electronics	6		326	
Graphic Arts	1		9	
Maritime Occupations	3		256	
Machine & Metal Industries	5	2	73	38
Personal Services	1	3	21	100
Plastics Occupations	2		137	
Quantity Food Occupations	7		237	
Textile Production and Fabrication	1		15	
Custodial Services	7		129	
Other Trade, Industrial, and Service	1		5	
Industrial Cooperative	6		156	
Total Trade, Industrial, and Service	94	21	2,758	1,869
TOTAL ALL PROGRAMS	234	110	7,243	7,323

The largest increases in enrollments as a result of new and expanded programs were primarily in the manpower shortage areas of distribution, office, health, construction occupations, and child care services. Last year, as in previous years, development of programs was based on either local or statewide manpower needs. Secondary agencies offering occupational education determined manpower shortage areas based on special surveys, regional and statewide labor market reports, and recommendations of advisory groups, and of business and industry.

In addition to coordinating increases in program offerings with manpower needs, efforts were made to provide training within the courses which was geared to meeting industry's current specific demands for skills and knowledge. Suffolk County BOCES, for example, reported that it had conducted an industry oriented data processing program which paralleled local industry configurations in equipment, methodology, and data handling techniques. In the city of Rochester, the electronics program was improved through the addition of a combination of new learning techniques and up-to-date electrical rotating machinery and associated test equipment.

Various resources were utilized during the year as a means of providing additional students opportunities to enroll in secondary level occupational education programs. Innovative scheduling methods together with greater use of existing facilities and equipment during summer months and after regular school hours enabled schools to offer additional and more diversified programs.

While many BOCES and cities reported a variety of improved scheduling arrangements, the following are examples of the kinds of approaches used. Western Delaware BOCES offered a midday data processing program, which was designed especially for students unable to fit a regular half day program into their schedules. Suffolk County BOCES #2 reported that double utilization of all instructional equipment and space was accomplished by the conducting of secondary level evening occupational classes. In the city of Syracuse, students in a small engines course and in a machine shop course were scheduled for combined instruction. This arrangement resulted in increased utilization of facilities and equipment and created more diversified instruction.

The utilization of the resources and facilities of community agencies, other education institutions, and businesses and industries was another method of providing additional opportunities for students. In Orleans-Niagara County BOCES, for example, the live work portion of the automotive offerings was greatly improved by the acquisition of late model wrecked automobiles, which students could repair and rebuild. Use of personnel from area business and local health agencies for classroom instruction was reported by Nassau County BOCES, Herkimer County BOCES, Washington-Warren-Hamilton-Essex County BOCES, and the city of New York.

Instructional approaches such as modular programming and multi-occupational exposure were increasingly utilized for purposes of: increasing opportunities for greater numbers of students to participate in learning experiences; enabling students to sample a variety of occupations and to select the training for which they have interest and ability; and providing training, in broad areas or in specific skills which often cuts across traditional program lines, but is required for entering and progressing in occupations. Seventeen BOCES area centers and the cities of Rochester, Syracuse, Yonkers, and New York reported that students had been offered some form of modular or multioccupational instruction.

As indicated in following sections of this report, additional methods used to provide an improved secondary occupational education program and to attract additional students included: increasing coordination and articulation of secondary and post-secondary programs; developing and expanding occupational information, guidance, and placement services; expanding cooperative work experience programs; and strengthening the preparation of secondary occupational education teachers.

Objective

Serve additional segments of the secondary population in expanded distributive and office education programs in local schools.

Accomplishment

A total of 3,929 students were served in specially funded distributive and office education programs. Of the 38 programs funded last year, 20 were in office education, 13 were in distributive education, and five covered both program areas.

Description

As a result of these special projects, new business and distributive education programs were established and several existing programs were expanded through the addition of courses. In some cases, sections of courses were also added to accomodate the increases in enrollment.

In office education, sections of courses in office practice, bookkeeping/accounting, and shorthand/secretarial practice were added in several high schools, thus providing increased opportunity for students to prepare for general clerical, bookkeeping, and stenographic occupations. The general office--clerical, and typewriting program was expanded in two high schools through the addition of machine transcription and office practice courses.

Several high schools added new programs to their curriculums. The new programs tended to be general office--clerical and typewriting, data processing, bookkeeping and accounting, and supervisory and administrative management. Additionally, six high schools began cooperative work experience programs in office skills.

The distribution program most frequently added or expanded as a result of the special projects was general merchandising, general sales, or sales supporting. The courses within this program generally added were Distribution I, Distribution II, marketing, and general sales. Distribution I or other comparable first year distribution courses often included experience in operating a school store in addition to regular classroom instruction. The second year programs were intended to refine and improve students' retailing, merchandising, and business management skills and to acquaint them with the basics of business ownership and operation. These programs generally provided opportunities for students to participate in supervised work experience at local retail establishments.

Both the office education and distributive education programs contained a variety of innovative practices. In Ithaca High School, for example, an integrated business program for upper high school grade levels, completely individualized the office education curriculum. The program provided self-paced learning packets through which students could progress based on their own interest and skills.

In Wyandanch High School a new core program combined typewriting and general business courses as the first level of a planned continuum designed to prepare economically disadvantaged pupils for office occupations.

A clerical--banking program in Mamaroneck High School involved the management and operation of an actual bank supervised by the classroom teacher.

In North Babylon High School, a distributive education program was provided for 10th graders. The first segment of the program explored career opportunities available to students trained in distributive education and identified the skill training and educational background required for the various career levels. The second part covered marketing and distribution theories and practice, particularly as they occur in the United States.

Objective

Increase the number of secondary students enrolled in cooperative work experience programs from 13,929 to 20,000.

Accomplishment

Enrollment in cooperative work experience programs increased by 2,789 from 13,929 in fiscal year 1971 to 16,718 in fiscal year 1972.

Description

Cooperative education programs were conducted in 13 BOCES area centers and each of the six major cities last year. Within the BOCES centers an additional 969 students were served: 359 in new programs and 610 in expanded programs. In the six major cities 500 students were enrolled in new programs and 2,345 in expanded programs.

Approximately 1,580 additional students, 259 in new programs and 1,325 in expanded programs received cooperative work experience in local educational agencies as a result of last year's specially funded distributive and office education programs.

Last year as in previous years, cooperative work experience was strengthened statewide through: the addition of work experience coordinators; increases in the number of work stations; and the expansion of summer programs.

Seven BOCES area centers and the cities of Rochester and Buffalo reported the addition of one or more full-time work experience coordinators to their staffs. Three other BOCES centers indicated that the functions of cooperative work experience coordinators were being performed on a part-time basis by newly employed placement coordinators.

Work stations were added and/or expanded in almost every BOCES and major city offering cooperative work experience. Some unique cooperative education programs were available at several locations around the State. At Monroe County BOCES #2, for example, students in the cooperative machine shop program obtained preapprentice training at three area firms and received credit toward their apprenticeship following successful completion of the program.

Students in health services, medical assisting, child care, and dental assisting programs at Nassau County BOCES received diversified cooperative work experience at area hospitals and clinics which enabled them to explore the practical aspects of a variety of occupational fields.

In the city of Syracuse, the Parks Department cooperated with the public school system, in offering a course in ornamental horticulture. The students were able to use the park facilities and were instructed in some cases by park personnel. They also had the opportunity to gain additional experience by working with some of the local greenhouse operators and nursery dealers.

New York City's cooperative program was noteworthy with respect to the wide variety of courses in which work experience was offered. Cooperative work experience was available in the following courses: automotive trades, electrical trades, building maintenance, woodworking, optical trades, warehousing, agriculture, horticulture, graphic arts, airport aide, drafting, practical nursing, auxillary health assisting, and clerical and office instruction. Over 300 business firms, 60 municipal and 20 State agencies participated in New York City's cooperative program last year.

The summer cooperative education programs continued to be expanded last year. Nassau County BOCES, Lewis County BOCES, Suffolk County BOCES #1 and the cities of Rochester, Buffalo, and New York reported the addition of work experience programs conducted during the summer months.

Generally the reports from the BOCES area centers and the six major cities indicated that cooperative programs have positive effects on students in addition to providing realistic exposure to working conditions. Participation in cooperative programs often resulted in: less student absenteeism, lower dropout rates, increased interest in occupational and home school subjects, and full-time employment of students by cooperating firms and agencies.

- Goal: Provide secondary occupational education students with the basis for continuing their occupational education at post-secondary institutions.

Objective

Increase the number of curriculums articulated locally between BOCES area centers and 2-year public colleges.

Increase the number of graduates of secondary occupational education programs who continue their post-secondary education.

Accomplishment

The followup portion of the Occupational Education Data Subsystem indicates that 25,932 graduates of secondary occupational education programs enrolled in post-secondary programs in 1972.

Description

During the past year, a large number of BOCES centers and the six major cities reported that emphasis was placed on increasing the number of graduates of occupational education programs who enter post-secondary programs. A major method used to promote enrollment in post-high school programs was articulation in the form of coordination of programs and sharing of services, facilities, and staff with 2-year and 4-year colleges.

Articulation of programs increased the college-going rate of occupational education graduates by: improving the accessibility of post-secondary programs; producing more valuable, sequential course content; and providing college credit or advanced college standing for secondary occupational education students.

Sixteen area centers and the city of Syracuse reported that programs articulated with post-secondary institutions were in operation during fiscal year 1972. Additionally, eight area centers and the cities of Buffalo, Rochester, and New York indicated that plans had been made during the year for articulation of programs in the near future. Seven other BOCES area centers and Albany and Yonkers reported that while plans for coordination and sharing of programs and services had not been formalized, preliminary steps, such as visits, meetings, and conferences with post-secondary institutions to discuss articulation, had been taken.

The most commonly articulated courses were: nursing, conservation, data processing, bookkeeping, building trades, auto mechanics, and electronics. To a greater extent than in previous years articulation efforts between secondary and post-secondary institutions involved coordination of more than one course or program.

Students at Suffolk County BOCES, for example, who were enrolled in the mechanical, electrical, or chemical technology programs, received advanced college credit in the form of waivers for certain requirements in the certificate and A.A.S. degree programs.

At the St. Lawrence County BOCES, the building trades program, automotive program and foods program were coordinated with comparable programs at Canton Agricultural and Technical College. Students in these BOCES programs were readily able to transfer to the college and were able to enroll in courses which were closely related to and non-duplicative of secondary school subject matter. The licensed practical nurse program at the St. Lawrence County BOCES was developed with the direct involvement of Canton Agricultural and Technical College. Graduates of the BOCES licensed practical nurse program were able to transfer to the collegiate registered nurse program.

New York City conducted the second phase of a project, to study ways in which articulation of secondary cooperative work experience programs and cooperative programs at City University of New York can be facilitated. Specifically, the goals of this CONCEPT project were to ease transition of cooperative work experience programs from high school to college; coordinate and open new lines of communication among educational institutions; contact and recruit new cooperative employers; and collect data about high school cooperative education students who plan to enter or have entered programs at CUNY.

As indicated in the previous examples, articulation efforts generally resulted in increased recognition of the value of secondary occupational education at the post-secondary level and in the improvement of the relevancy and continuity of post-secondary programs for secondary students. In some cases, however, additional courses, facilities, and services became available to students already enrolled in post-secondary programs. For example, students enrolled in data processing, machine trades, drafting, secretarial science, and electronics at Adirondack Community College received skills training in the laboratories and shops at the local BOCES center. At Dutchess Community College students in the architectural design program participated with the BOCES students in remodeling a local building. Business students at the Community College of the Finger Lakes used the Finger Lakes BOCES center's data processing laboratory to obtain practical experience in operating computers.

- Goal: Encourage youth to be responsive to the welfare of others and to participate in youth organizations which foster leadership abilities.

Objective

Increase membership in occupational youth organizations which promote leadership and service activities.

Accomplishment

Total membership in youth organizations increased by 578 during the fiscal year. All of the individual organizations experienced growth in enrollments with the exception of FHA. Possible reasons for the decrease in FHA membership may have been the increase in State FHA dues based on increases in dues nationally, and the growing number of teacher employment contracts which limit the extra activities teachers will participate in without remuneration.

Description

Last year emphasis continued to be placed on developing the quality of youth leadership programs by conducting inservice leadership programs for leaders and officers of youth organizations. A 3-week college course was conducted for youth club advisors by Cornell University. Thirty-three advisors participated in this program, which was intended to develop an understanding of: the function and role of youth organizations; the means in which youth organizations serve the psychological and social needs of students; the role of the adult advisor; and practical applications of the principles learned in carrying out successful youth activities. The program instructional methods included lectures, group discussion, role playing, and individual study. Plans for conducting similar courses have been formulated by SUNY at Buffalo and Oswego, and by New York University.

Fifteen leadership camps and training sessions were conducted for purposes of increasing membership, developing valuable traits in youth, developing a good public relations image, recruiting potential vocational teachers, and promoting greater cooperation among youth organizations. These meetings and conferences were located in various areas of the State and had a total attendance of 580 teacher advisors and youth leaders. Various methods such as role playing, small group discussions, classroom sessions, workshops, and 1-to-1 interaction between State and chapter leaders, were used to achieve the goals of the program.

A supplementary student curriculum guide, designed to complement the efforts of youth organizations in promoting youth service activities, was completed last year. Plans were also made to develop curriculum guides of the five youth organizations, to be used by undergraduate teacher trainees.

- Goal: Provide adequate guidance, counseling, placement, and followup services for all students appropriate to their plans to continue their education or to seek employment.

Objective

Promote understanding of the occupational structure of the world of work, including reference to the national, regional, and local labor markets.

Provide every student leaving school with knowledge of the occupational clusters most appropriate to his needs, interests, and abilities.

Description

At the State level, the major effort aimed at accomplishing the preceding objectives, was promotion of career education concepts. As indicated in the ELEMENTARY AND EARLY SECONDARY section of this report, promotional activities included: development and distribution of a set of guidelines to educational agencies for planning and implementing career education programs; continued exploration, by an occupational orientation committee, of the status and methods of implementing and improving occupational orientation and career education; and review of career education proposals submitted from around the State.

Additionally, a number of orientation and exploration projects, such as the Buffalo "Open Door to the World of Work" and the Mid-Hudson Career Development and Information projects, which were initiated prior to the development of the career education guidelines, were continued last year. The status and outcomes of these projects has also been described in the ELEMENTARY AND EARLY SECONDARY section.

The Bureau of Guidance in the State Education Department has been testing a development plan, which was designed to assist schools in creating a systematic approach to infusing decisionmaking and personal-social skills associated with work environments into the guidance program. Skills in systems approaches to problem solving were taught on an inservice basis to a multidisciplinary team from each of the four school districts, where this approach was tested.

The directors of occupational education programs in BOCES area centers and the six major cities reported that in addition to special activities such as developing plans and proposals for career education and conducting model occupational awareness programs, a number of ongoing methods were employed to increase student awareness of occupations and the world of work.

Ten BOCES centers and each of the six major cities, for example, reported that they had utilized presentations and lectures by business and industry representatives as a means of promoting understanding of job categories, practices, responsibilities, requirements, and benefits. Several other BOCES mentioned use of the services of former students, knowledgeable community members, and advisory groups to increase students' occupational knowledge. Field trips to area businesses were frequently cited as a means of reinforcing the information presented to students by teachers, guidance counselors, and supplementary personnel.

Objective

Develop occupational information systems keyed to the regional labor market.

Description

As in the previous year, regional occupational education planning furthered the development of broader based occupational information systems. While several BOCES reported increased emphasis on developing information systems keyed to regional labor markets, Mid-Westchester County BOCES and Nassau County BOCES described computerization of regional occupational information data. Under a new system which has been developed at Mid-Westchester BOCES, the pupil personnel department will be able to provide students at the center with detailed information concerning job openings, educational opportunities, scholarship information, and military training opportunities. The terminals and printers, which are located in the guidance office, are operated from data stored in the Regional Data Processing Center.

Nassau County BOCES began development of a regional placement information system. The system, when completed, will utilize several student and graduate files, employer files, and a skills checklist file system to provide crosswalk information between employers and BOCES students and graduates in need of job placement. The crosswalk file will enable counselors to make better matches between the abilities and interests of students, and the needs of employers.

Other BOCES and each of the six major cities cited the use of existing information and services provided by agencies such as the New York State Employment Service and the New York State Commerce Department as a means of developing regional information systems.

The information from these sources was frequently supplemented by materials and assistance provided by business and industry advisory committees, community advisory committees, and CAMPS. Occasionally, BOCES contracted with independent research agencies or performed their own area surveys of the local labor market as a means of obtaining or supplementing occupational information.

Resource materials commonly used in developing the information systems included: Dictionary of Occupational Titles, Occupational Outlook Handbook, industry releases, and local labor union periodicals.

Objective

Develop placement programs to assist all pupils to move effectively from school to work and from school to other institutions.

Description

The directors of BOCES area centers and the six major cities indicated in their end-of-year reports that formal placement practices were increasingly viewed as an integral part of the secondary occupational programs.

Growth in the number of students in need of placement services and the increases in occupational complexity frequently necessitated the employment of a full-time placement coordinator, with specific responsibility to assume the activities previously undertaken by teachers on an informal basis. The duties of the coordinators usually included contacting employers to obtain job information; creating an awareness of the available occupational programs; providing employment information to students, parents, and teachers; and generally developing an effective placement program.

At the State Education Department level, efforts were made to assist the development of formal occupational education systems. VEA funds provided initial support for hiring placement coordinators in 10 BOCES area centers and the cities of New York, Albany, and Syracuse. The size of the area served by the coordinators was based on local needs. Usually these persons served a particular BOCES or city but in Albany and Syracuse, for example, coordinators were employed half-time in the city schools and half-time in neighboring BOCES.

BOCES in Jefferson County, Westchester County, Essex County, Dutchess County, and Cortland-Madison Counties reported the addition of full or part-time personnel with specific responsibility for placement. Frequently, these persons were guidance counselors or teachers who were reassigned to have primary responsibility and accountability for placing students.

A number of directors of occupational education continued to indicate that placement was an integral part of the whole occupational program and was accomplished through utilization of a variety of regular school personnel. The team approach, involving occupational education teachers and guidance personnel, supplemented by resource people from employment services, post-secondary institutions, and business and industry, reported by Oneida-Madison-Herkimer BOCES was commonly employed in other area centers.

Within these programs, utilizing combined school and community personnel, various resources and methods were employed to improve placement effectiveness. Delaware-Chenango-Madison-Otsego BOCES, Rockland County BOCES, and Sullivan County BOCES, reported that brochures and pamphlets were prepared following surveys of local labor market conditions. Periodic dissemination of information through the news media and collection of relevant occupational materials in special libraries were other methods of increasing student awareness of career opportunities and thereby improving placement.

- Goal: Expand and strengthen programs and services at the secondary level which improve consumer and family living skills of youth.

Objective

Increase secondary enrollments in consumer and family living exclusive of disadvantaged youth, from 106,693 to 116,145.

Accomplishment

Enrollment in secondary consumer and homemaking education, exclusive of disadvantaged students, was 93,050 last year. This lower enrollment figure is a result of the use of revised reporting methods. Prior to 1972 fall enrollments collected through the Basic Educational Data System were increased to account for additional students who enroll in the spring semester. Last year the fall status report of consumer and homemaking education enrollments was used unaltered to be compatible with other secondary and post-secondary program area enrollments obtained through the Occupational Education Data Subsystem, which is also a fall status report.

Description

Last year emphasis was placed on increasing student interest and participation in consumer and family living education through completion of pilot projects designed to identify their specific needs and goals.

The pilot project, concerned with determing program adjustments and recruitment methods which increase boys' interest in consumer and homemaking courses, had significant increases in enrollment. Between 1970, the first year of the project and last year, the number of boys enrolled in consumer and homemaking courses at the schools participating in the project increased from 17 to 194. Programs offered the boys included: foods and nutrition, home management, consumer education, clothing and grooming, personal development, and child care.

The program offerings and instructional methods were generally favorably regarded by participants, teachers, and parents. Also new segments of the school population developed an interest in consumer and homemaking courses following this project.

A pilot project designed to determine the contribution which teacher aides can make to increased consumer knowledge and skills, served about 600 students at three Rochester schools in its second year of operation. Bilingual aides worked on a 1-to-1 basis with Spanish-speaking students and also served as liaisons between the school and the community. Program results included: greater student interest in learning and increased community understanding of the schools.

Another pilot project continued last year was one testing the effectiveness of independent study in consumer and homemaking education. Learning packages prepared by teachers were tested by both educationally disadvantaged students and academically oriented students. This project revealed that both groups of students preferred to have altered forms of independent study. The academic students enjoyed constructing their own learning packages while the disadvantaged students preferred working on projects with their peers.

A pilot project designed to identify the type of programs needed to prepare occupational education students for the dual role of homemaker-wage earner served approximately 500 students last year. The project was conducted in the inner-city area of Rochester where students from two occupational education schools were served on an alternate day basis. Instructional methods used included: group instruction and discussion; independent study; field trips; and use of slides, films, and other audio-visual materials.

- Goal: Strengthen the preparation of secondary occupational education teachers.

Objective

Increase the number of secondary occupational education teachers participating in inservice activities.

Accomplishment

A total of 702 secondary occupational education teachers participated in 28 inservice programs. Twenty-five of the programs, conducted by colleges and universities, focused on meeting statewide occupational education training needs. Three programs, sponsored by BOCES area centers, were designed to satisfy more specific locally-oriented training program needs.

The following table lists the names, locations, and enrollments for all of the programs.

NAME OF PROGRAM	LOCATION	ENROLLMENT
Agricultural Education		
Agricultural Electrification	Cornell University	11
Curriculum Construction: Modular Instruction	Cornell University	9
Landscape Design and Woody Plants	Cornell University	13
Natural Resources Institute	Cornell University	16
Principle and Practice of Sawmill Management	Cornell University	4
Use of Soil Information and Maps as Resource Inventories	Cornell University	23
Wildlife Ecology and Environmental Education	Syracuse University	12
Business Education		
Continuous Progress Instructional Techniques in Shorthand	Pace College	40
Individualization of Instruction in Office Technology	SUNY at Buffalo	22
Workshop in Office Technology	SUNY at Albany	14

NAME OF PROGRAM	LOCATION	ENROLLMENT
Distributive Education		
Distribution and Marketing Rallies (2)	SUNY at Albany	200*
Statewide Seminar in Distributive Education (Summer)	SUNY at Albany	45
Statewide Seminar in Distributive Education (Spring)	SUNY at Albany	51
Visual Merchandising Institute	SUC at Buffalo	10
Workshop in Distribution and Marketing	New York University	40
Health Occupations Education		
Curriculum Planning for HOE Programs	Syracuse University	15
Methods, Materials, and Multi Media Resources for HOE Programs	SUC at Buffalo	10
New Trends in Curriculum Planning for LPN Programs	Hunter College	22
Home Economics		
Incorporating Prevocational Education in General Home Economics Courses	SUC at Buffalo	14
Incorporating Prevocational Education in General Home Economics Courses	New York University	24
Trade and Technical Education		
Current Industrial Drafting Practices	SUC at Buffalo	19
Heating and Air Conditioning Institute	SUC at Oswego	6
Modern Industrial Drafting Practices	SUC at Oswego	9
Emmission Control for Automotive Teachers	Herkimer County BOCES	25*
Mini-Institute for Teachers of Plumbing, Heating, Air Conditioning, and Refrigeration	Tompkins County BOCES	11

NAME OF PROGRAM	LOCATION	ENROLLMENT
Inter-Disciplinary Programs		
Workshop in Cooperative Vocational Education and Training	City University of New York	14
Inservice Training for Occupational Learning Center Staff	Syracuse City Schools	11
Adult Education		
Workshop on Teaching Occupational Education to Adults	Syracuse University	12

* Estimated Enrollment

Description

The inservice education programs offered during fiscal year 1972 continued to be designed to help teachers improve the quality of instruction by providing them with information on: maintaining an up-to-date curriculum; latest teaching methods; recent technological developments, and resource materials available.

Within the field of agriculture, courses offered included: landscape design, the application of electrical power to agricultural needs, and diverse courses in the area of conservation. In each of these offerings, but particularly in conservation courses, such as wildlife ecology and soil usage, the participants were given opportunities for simulated practical application of the concepts which were taught.

An important aspect of inservice agricultural offerings was a program on curriculum development for modular instruction. The program was designed for experienced teachers and assisted them, on a highly individualized basis, in developing modular curriculum packages. The modules developed in the program were intended to be further tested and modified in the teachers' home classrooms.

In business education, inservice activities dealt with familiarizing business teachers with the continuous progress instruction in the areas of office technology and stenographic practice. The materials and techniques developed in these programs are currently being tested and revised in the participants' home school for inclusion in the 1972-73 inservice programs.

A major distributive education inservice activity was the continuation of a Statewide Task Force or Seminar on Distributive Education. The seminar, in addition to providing opportunity for dialogue among State, university, and local distribution educators, has been an excellent vehicle for disseminating new techniques and methods to the field and for the wide-range field testing and refinement of education strategies.

Inservice offerings in distributive education also included a program on visual merchandising and on the development and utilization of student project assignments.

Three inservice programs were offered in the field of health occupations education. The content of each was directed at producing expertise in curriculum development and at creating skills in motivating students, particularly those who are educationally disadvantaged.

Participants in the programs included: experienced teachers in the field of health; reclassified home economics personnel in need of some redirection in order to teach health courses; and technically skilled, but nonclassroom oriented, health care specialists.

Home economics education inservice activities were directed at promoting an awareness of the extent to which home economics can and should serve as a medium for generalized world of work orientation. The programs developed explored in some detail the implications, which incorporating world of work concepts into family living courses, will have on the teaching of home economics.

Inservice programs in trade and technical education continued to focus on updating teachers' knowledge of current practices and trends in specific programs. Drafting, and heating and air conditioning, which were the programs explored this year, were developed with the involvement and cooperation of various industries.

The interdisciplinary inservice education program, conducted last year, focused on cooperative occupational education. Program content included consideration of: cooperative education program planning, employment placement, and latest instructional methods. Evaluations of program results indicated that while interdisciplinary inservice activities should receive increased future emphasis, program design will need to be modified in order to provide meaningful experiences for participants with widely diversified experiences and backgrounds.

The 3-day adult education workshop was designed to increase teachers' understanding of adult learners and to help them develop instructional techniques designed for adult education. Participants in the program suggested that future workshops of this nature should be extended and should have a more definitive task orientation.

Objective

Increase from 150 to 300 the number of personnel who participate in inservice opportunities which focus on appropriate content and effective approaches to teaching consumer and homemaking skills.

Accomplishment

Two hundred and four teachers participated in workshops focused on appropriate content and effective approaches to teaching consumer and homemaking skills.

Description

Fourteen teachers participated in a workshop at Buffalo which focused on developing techniques for incorporating prevocational education into the homemaking program, and determining ways to prepare boys and girls for the dual role of wage earner--homemaker. The participants studied motivation techniques, audiovisual methods, and learned how to use community resources. They also prepared 12 different learning packages covering various aspects of prevocational education. The teachers reacted favorably to the program, indicating that they felt more competent and had new outlooks on teaching and instructional methods.

Two workshops, designed to assist teachers construct consumer and homemaking learning packages, including audiovisual materials, were attended by 50 teachers last year. The specific goals of the project were to provide information on: curriculum development and evaluation procedures; current research on and trends in the use of learning packages; resource material availability; learning package evaluation; learning package development; and learning package use for individualized instruction.

A total of 146 teachers took part in two institutes devoted to identifying teaching and supervisory practices which lead to quality consumer and homemaking education programs. Emphasis was placed on developing teacher awareness of student needs and interests and on increasing participants' understanding and use of student behavioral objectives to determine teaching goals and evaluate teaching practices.

- Goal: Improve the quality and reduce operating costs of occupational education programs through construction of permanent area occupational center facilities.

Objective

Provide permanent facilities at area centers where they are needed.

Accomplishment

Funds were allocated for the construction of facilities at two BOCES centers and at two community colleges, for the purchase of supplemental equipment for 39 previously approved construction projects, and for the acquisition of existing facilities at two locations.

Description

The two BOCES area occupational education centers which were granted construction funds were Allegany County BOCES and Suffolk County BOCES #3. The Allegany County project will result in the establishment of new programs in the areas of agriculture, business, and trade and industry. Approximately 420 additional students will be served as a result of this new facility. At the Suffolk County BOCES, Northport Center, approximately 920 new students will be served in the program areas of business, health, and trade and industrial education as a result of the construction project.

Funds were also allocated for a new health science building at Broome Technical Community College. This facility will create an expanded health curriculum at the college and consequently will result in increased student enrollment of 1,153. The construction of a new occupational education facility at Tompkins-Cortland Community College will provide accommodations for approximately 1,900 additional students.

Two other projects involved the purchase of existing buildings by the Hamilton-Fulton-Montgomery BOCES and Westchester County BOCES #1. Through the acquisition of these facilities, it was anticipated that about 620 additional students would be served.

Carryover 1971 Vocational Education and Appalachian Regional Development Amendment monies were also used for the purchase of supplemental equipment for 39 new facilities. As a result of this additional equipment, 8,252 students will benefit from the expansion of occupational education offerings.

SECONDARY

DISADVANTAGED

- **Goal: Serve disadvantaged students through expanded occupational programs and special services.**

Objective

Increase from 73,536 to 80,000 the number of disadvantaged students enrolled in occupational education.

Accomplishment

The total number of disadvantaged students enrolled in occupational education programs at the secondary level was 88,756 last year. Of this total 4,861 were in the BOCES centers, 74,035 in the six major cities, and 9,860 in the local educational agencies.

Description

Increased numbers of disadvantaged students were served in occupational education as a result of the addition of new and expanded programs. During the past year, 27 new programs were initiated for disadvantaged secondary students: 15 in the BOCES area centers, serving 317 students; 10 in the six major cities, serving 1,013 students; and two in local educational agencies, serving 57 new students. Sixteen expanded programs were also conducted: two programs in the BOCES centers, five in the six major cities, and nine in local educational agencies. These expanded programs served a total of 1,156 students.

As in past years, the policy of agencies offering occupational education continued to be to serve disadvantaged students in regular occupational courses, whenever possible, and to accompany the regular instruction with any special assistance or services required by the students. All of the special efforts to serve the disadvantaged were aimed at discovering and stimulating student interest and providing the additional instructional or supportive services required for the students to succeed once they had found their areas of interest.

A frequently used method of discovering student interest was to supplement regular secondary programs with a variety of exploratory courses and methods of instruction. Multioccupational courses, for example, enabled students to sample several programs on a short term basis prior to enrolling in one specific occupational program. This type of approach was used by BOCES in Genesee-Wyoming Counties, St. Lawrence County, Washington-Warren-Hamilton Counties, Erie County, Chautauqua County, Essex County, Clinton-Essex Counties, Delaware-Chenango-Madison-Otsego Counties, and the cities of Yonkers and Rochester.

The multioccupational program offered by Chautauqua County BOCES was typical of many such programs. Students who had been potential dropouts were given an opportunity to explore courses in carpentry, masonry, electrical trades, plumbing, and heating. Following this exposure the students enrolled in one of the regular occupational programs for which they had shown the greatest aptitude and preference. The success of this type of approach is illustrated by the fact that, of the 40 students enrolled in the exploratory phase of the program, only two dropped out before the end of the program.

At the Washington-Warren-Hamilton-Essex County BOCES the multioccupational program was reinforced by the development of motivational instructional and curriculum materials. Following use in the program, parts of the materials were transmitted to the students' regular academic teachers to be used as supplementary information in the classroom and to reinforce learning that had occurred in the skill development units.

In many of the multioccupational program components, as well as in regular occupational education programs which had disadvantaged enrollees, supplementary services such as individual instruction, employment orientation, remedial assistance, and additional guidance and counseling were provided.

Since students' readiness, desire, or availability for education or training are continually changing, efforts were made to: provide more flexibility in scheduling; provide programs outside of regular school hours and during the summer; and permit students to leave and reenter both specific courses and occupational education training in general.

Specific programs for disadvantaged students who could not succeed in regular programs even with extra services were provided by many BOCES area centers and the six major cities.

A number of the special programs offered in New York City are noteworthy in terms of instructional techniques, organizational methods, and materials and equipment used. For example, disadvantaged students had the opportunity to enroll in a textile engineering management program, which included 2 years of high school work and 2 years at Fashion Institute of Technology. In the 11th year, students were exposed to a correlated curriculum of English, math, mechanical technology, and mechanical drawing. In the 12th year, instruction was interdisciplinary and consisted of textile science, marketing, accounting, and English. Graduates of the high school phase were admitted to Fashion Institute of Technology with advanced college credits. The training provided in the program was continually reinforced through remedial instruction, guidance assistance, and conferences with parents.

New York City also conducted a pilot project designed to provide disadvantaged high school juniors and seniors with marketable skills as environmental aides. Following orientation to the world of work, students were enrolled in short classroom units on subjects such as water supply, waste collection and treatment, and industrial safety, supplemented by varying amounts of on-the-job work experience. A major goal of the program was to prepare students for advanced study at the community college level or in various State, Federal, or private agencies concerned with public health and environmental protection.

Another of New York City's pilot projects provided job entry and/or job adjustment preparation in office and distribution fields for disadvantaged students who lacked marketable linguistic skills. The enrollees in the program were either bilingual Spanish-speaking students or other minority group students whose dialects hindered them in securing employment. They were assisted on an individual basis in mastering the skills and techniques necessary for a variety of job situations including: job interviews, transmitting messages to peers and employers, and communicating by telephone. Emphasis was placed on improving student performance in simulated specific occupations such as bank teller, stenographer, airline reservations clerk, and receptionist.

The city of Yonkers conducted a program, designed to offer occupational education students, and particularly those with academic or educational problems, occupational information, career guidance, and placement services, comparable in quality to those provided college bound students. A comprehensive testing procedure was available to assist both the counselors and the students in developing a realistic approach to occupational planning and formulation of career goals. The tests provided statistically significant information concerning students' interests, aptitudes, work values, and needs. Additionally, a weekly occupational information discussion course was conducted, in which students' attitudes and feelings about the world of work were explored and analyzed.

The program served as a source of current occupational education information for all guidance counselors in the city schools. Information was collected and disseminated to enable all youth to become aware of career opportunities available to them.

In Genesee-Wyoming County BOCES, a school operated work experience program was used to train students in service station occupations. A simulated but functional service station was established in which students received a combination of classroom instruction and actual experience in providing customer services and performing mechanical operations. Since the work experience occurred in school, many students were able to gain practical experience simultaneously and instructors could carefully regulate the coordination of formal instruction and work experience.

Nassau County BOCES conducted an outreach program serving four districts with high proportions of disadvantaged students. In the first phase of the program BOCES counselors worked closely with school guidance counselors, teachers of grades 7-12, and administrators to familiarize them with existing occupational education offerings and to generally strengthen their understanding of the career opportunities provided by occupational education training.

Following the staff orientation, the counselors met with disadvantaged students in groups and individually to broaden their knowledge of occupational education opportunities open to them and to assist them in planning their school programs and formulating future goals. Parents were also contacted through home visits and in-school conferences and provided information designed to stimulate their interest in occupational education and increase their understanding of the ways that such training can be useful to their children.

Objective

Serve new segments of the disadvantaged population.

Accomplishment

Approximately 8,400 disadvantaged persons benefited from VEA funded (102b) occupational education programs and services designed to serve new segments of the disadvantaged population.

Description

Last year 18 projects, designed to serve new segments of the disadvantaged population, were supported by VEA funds. Thirteen of the projects were for establishing new programs and five were for expanded programs. The five projects conducted in the BOCES centers were for the development of new programs and affected approximately 400 students. In the six major cities, eight projects were for new programs and served approximately 2,000 students; five projects were for expanded programs and served nearly 6,000 students.

In all of the programs, high priority was placed on reaching disadvantaged students not served by regular occupational education programs, particularly those in urban and rural areas of high youth unemployment and high school dropout rates and those enrolled in nonprofit, private schools. In New York State, however, lack of State legislation permitting dual enrollment continued to be a problem in serving large numbers of students from the nonpublic sector. Nonpublic school students were served in cooperative education programs supervised by public school personnel and in occupational programs conducted outside regular school hours; e.g., after school and in summer sessions.

These programs, like all programs for the disadvantaged, were characterized by flexibility in scheduling, programming, and curriculum, and by program content and instructional options designed to create and maintain student interest. The programs often consisted of an exploratory multioccupational component followed by a skill training section. The cities of Buffalo and Rochester, for example, offered multioccupational programs in the areas of trade and industry and home economics. Nassau County BOCES conducted a summer multioccupational, prevocational course. Students had the option of exploring different occupational areas or systematically increasing their knowledge of one area. In this program, as in many of the special programs for the disadvantaged, instructors employed several teaching techniques in addition to regular course work, such as: "live" demonstrations, individualized instruction, and student participation on small projects and jobs.

A few of the projects were geared to serving specific segments of the disadvantaged populations. Two programs in the city of Buffalo were designed to provide unwed mothers with skill training in business and home economics education. The State University at Geneseo conducted a program for migrants. A mobile van was used to contact migrants where they work and live. Informal techniques were used to explore migrant workers' occupational interests and aptitudes and to assist them in selecting and enrolling in occupational education programs.

New York City operated a widely expanded program for the disadvantaged which exemplified several of the characteristics of special programs for the disadvantaged. The program included both short skill development and prevocational components. The skill development part of the program was conducted after regular school hours, and permitted continuous student entry, in an effort to provide a greater number of students access to the program. The training aspect of the program was supplemented by special services, including guidance and labor market entry assistance. Prevocational instruction and information was provided through the use of mobile vans which enabled lower school students to examine and, in some cases, use various kinds of machinery and equipment.

Objective

Increase the number of disadvantaged youth enrolled in consumer and homemaking education from 45,725 to 49,780 by fiscal 1972.

Accomplishment

The approximate number of disadvantaged youth enrolled in consumer and homemaking courses in 1972 was 40,253. This number falls below the prediction for that year due to a change in reporting methods. Prior to 1972, the fall enrollments reported through the Basic Educational Data System were increased to account for the additional students enrolled during the spring semester. The fall status report of enrollments is now being used in order to coordinate the consumer and homemaking enrollments with other program area enrollments reported through the Occupational Education Data Subsystem, which is also a status report of fall enrollments.

Description

Efforts to serve educationally and economically disadvantaged youth through consumer and homemaking included: the completion of pilot projects intended to identify the space and equipment required to meet homemaking education needs of boys and girls; and the establishing of projects which facilitate the development of consumer skills in boys and girls through innovative practices in home economics classes.

A pilot project serving 100 students was conducted in a rural area which has seasonal changes in migrant worker population. A relocatable classroom laboratory was used to provide the population with instruction in child care, low-cost home maintenance, furniture restoration and basic household equipment use. Instruction in this facility which included independent study, was combined with instruction in the permanent local home economics department.

One hundred potential dropout ninth graders were provided realistic home management and consumer-homemaking experiences in a rented flat in Schenectady. Their projects included refinishing floors and woodwork, wallpapering, shopping for food, home furnishings, meal preparation, and entertaining on special occasions.

Twenty new projects, which emphasized the consumer aspects of home economics, served approximately 3,000 students last year. Of the 20 projects, five projects were conducted in four major cities, ten were in smaller cities, and five were in rural areas. Several topics covered in the projects which were intended to improve the students' home, family, and community life included the study of ecology, and work with the aged and with young children and adults. The participants were also engaged in consumer oriented FHA activities, exploration of community resources, comparative shopping, assembly programs, and in teaching elementary students.

Objective

Increase the number of people who participate in preservice opportunities which focus on the needs of the disadvantaged and on effective approaches to teaching consumer-homemaking education to this target group.

Accomplishment

Ninety student teachers were provided opportunities to work in inner-city schools and with community agencies which serve the disadvantaged population through programs conducted by Cornell University and SUNY at Oneonta.

Description

The program conducted by Cornell University included: actual student experiences with disadvantaged students on the Cornell campus in Ithaca, or in Rochester; an ongoing seminar; and individual conferences between undergraduates and graduate students enrolled in teacher education. Both the seminar and the conferences aided the participants in analyzing and evaluating their experiences in the program.

SUNY at Oneonta conducted a program which combined classroom instruction and brief field experiences in working with disadvantaged home economics students. The field experiences took place in Schenectady and Syracuse and consisted of discussions with city teachers about students, programs, and local employment conditions, and of opportunities for the students to work with and observe home economics students from prekindergarten through adult levels.

The effect of the program on the students was measured by a comparison of the results of a pretest and a post-test of student attitudes, knowledge, and reactions.

- Goal: Contribute to increasing the holding power of the public secondary schools.

Objective

Increase the number of economically and educationally disadvantaged students enrolled in cooperative work experience and work study programs.

Accomplishment

A total of 4,745 economically and educationally disadvantaged students were enrolled in cooperative work experience programs last year. Work study programs had an enrollment of 2,268 disadvantaged students--1,176 in the BOCES centers and 1,092 in the six major cities.

Description

Cooperative work experience programs were designed to serve occupational education students by supplementing classroom instruction with related, supervised on-the-job work experience on a part-time basis. Program activities were structured to expose students to working relationships with other employees and supervisory personnel, to upgrade their skills, and to aid them in developing judgment and sensitivity in responding to adults in a work situation.

A large proportion of disadvantaged students who received cooperative work experience were enrolled in regular cooperative programs. However, the cities of Syracuse and New York and the Genesee-Wyoming County BOCES, Nassau County BOCES, Oneida County BOCES, Dutchess County BOCES reported that they conducted cooperative work experience programs, specially designed for disadvantaged students, last year. In these special programs particular emphasis was placed on selecting work experiences, often supplemented by special individualized instruction, which would create interest and decrease the likelihood of failure.

The bulk of new, specially selected work stations were added in New York City, where over 600 disadvantaged students were served by VEA funded cooperative work experience programs. One of the New York City programs, for example, offered work experience to potential dropouts in business, distributive, health, and trade and industrial occupations. Prior to the placement of students on-the-job, efforts were made to develop their specific interests and skills, and to familiarize them with existing employment opportunities. Participants were provided exploratory classroom experiences in several programs areas accompanied by individual testing, industrial visits, remedial assistance, group guidance, and lectures by representatives of businesses. Once students had discovered their areas of interest, work sites were available in a variety of establishments including hospitals, small retail establishments, banks, and large department stores.

Another program in New York City was designed to develop the skills of disadvantaged high school seniors in health occupations such as inhalation therapy and physical therapy. Classroom instruction consisted of a daily double period of instruction related to paramedical services, on a 2-week alternating basis. The on-the-job instruction and training consisted of a daily 3 hour session at a local hospital, on an alternating 2 week basis. This program benefited disadvantaged students by: providing orientation to the world of work; providing them with saleable skills; increasing their self-confidence and faith in the educational system; and providing them with paid employment. At the conclusion of the program students were also often able to stay in the jobs where they had received their training or to transfer to community colleges for advanced study.

Genesee-Wyoming County BOCES established a four-phase cooperative work experience program for potential dropouts. In the initial phase students received 5 weeks of multioccupational exploratory experience in the program areas of home economics and trade and industrial education. This exposure was followed by 10 to 40 or more weeks of employment in jobs at the school, which were related to the occupational training received in phase I. In the third phase, which again lasted from 10 to 40 weeks, students were placed half days in paid, supervised jobs at local cooperating businesses and industries. The final phase consisted of securing full-time employment for the students and providing followup supervision for at least 1 year.

Nassau County BOCES conducted a 6-week summer cooperative work experience program for disadvantaged students. The program, which enrolled approximately 300 students from five area centers was designed to increase the employability potential of students who had only minimal success in skill development during their first year. Each of the students in the program received a special orientation to employer standards and expectations prior to their work experience.

Work study programs, designed to provide disadvantaged students an opportunity to acquire some form of practical on-the-job work experience and to earn wages which will assist them in continuing their occupational training, were also conducted last year in each of the six major cities and in 16 BOCES area centers. Students were placed in jobs which best suited their training, skills, and personal interests.

As a result of actual on-the-job experience, students' work habits and attitudes essential for success in the world of work, generally improved. Participants also often profited from the suggestions of experienced co-workers regarding the application of school learning to practical job situations. And finally, success on the job usually served as a stimulus for greater interest in the instructional program.

The type of jobs in which students were placed varied greatly, covering all of the major program areas. The following are some examples of the kinds of employment which were available to students: drafting, machine operation, health occupations assisting, office and clerical practice, food service, laboratory assisting, building maintenance, automobile servicing, and landscaping and gardening.

While most of the employment was with public agencies, community organizations, and hospitals, some jobs were school-related, involving assistance of school staff or improvement of school property. In Oswego County BOCES, for example, students from the conservation-ornamental horticulture program were employed to assist in improving the BOCES groups and developing the new environmental education demonstration area. In the same BOCES, seniors in the dental assisting program were employed as teacher aides to the dental assisting teacher.

The scheduling of assignments in work study programs differed greatly, in terms of flexibility, duration, and in time of day offered.

SECONDARY

HANDICAPPED

- Goal: Expand and improve occupational programs and special services for handicapped students who, because of their handicaps, cannot succeed in occupational education programs designed for persons without such handicaps.

Objective

Increase the number of handicapped students served by occupational education at the secondary level from 5,219 to 6,500.

Accomplishment

A total of 7,012 handicapped secondary students were enrolled in occupational education programs during fiscal year 1972: 1,958 were enrolled in the BOCES, 4,522 in the six major cities, and 532 in local schools.

Description

New and expanded programs served 1,829 handicapped secondary students in 1971-72; 18 new programs served 517 students, and 9 expanded programs served 1,312 students.

A number of methods and instructional techniques were used in providing occupational opportunities to handicapped youth. Depending upon the type and severity of the handicap, students were frequently placed in the regular occupational program. Handicapped students at the Broome-Tioga BOCES for example, explored a variety of occupational fields in regular programs. They were encouraged to complete tasks to the best of their ability, and were given assistance as well as individualized instruction when necessary. Retarded students entered the regular curriculum on a trial basis, and 85 percent completed the program and found gainful employment. Many other area centers also reported success in placing handicapped students in existing occupational education programs, after appropriate counseling and testing.

Cooperative work experience was often a program component for handicapped students which facilitated their transition from school to full-time employment. The Nassau County BOCES, for example, operated a 6-week summer cooperative work experience program for trainable mentally retarded youth. Students were placed in manufacturing industries and routed through several job stations before permanent work assignments were determined. Students periodically met with a work experience coordinator who helped them with problems encountered on the job and provided counseling and job related information geared to the development of efficient work habits. The program was evaluated weekly in cooperation with employers and immediate supervisors of the handicapped students. The work experience program served two purposes: demonstrated to employers that mentally retarded students could successfully complete work assignments; and gave handicapped students confidence in their ability to secure full-time employment.

The city of Buffalo expanded an occupational program for mentally retarded students by the addition of work experience teacher coordinators employed to locate suitable work stations for senior handicapped students and to guide them in learning about the world of work. A portion of the school day was devoted to classroom training, and students were employed the remainder of the day in restaurants, nursing homes, department stores, hospitals, and service stations.

The Allegany BOCES conducted a similar multioccupational and work experience program for handicapped secondary students. Exploration of various occupational fields was followed by supervised work experience, and when appropriate, placement into a regular occupational program for specialized training.

Job adjustment training sessions frequently were incorporated in the occupational curriculum for handicapped students preparing either to enter a cooperative phase of a program or to directly enter the labor market on a full-time basis. This type of supplementary instruction helped the handicapped to accept responsibilities of work, and make personal as well as financial adjustments to independent living.

Many deaf, aphasic, and mentally retarded youth enrolled in occupational education programs in the city of New York received work-study assignments in their schools and at the Board of Education. Jobs also were provided in hospitals, health facilities, and day care centers. Work-study arrangements, like cooperative work experience programs, exposed handicapped students to working conditions and job responsibilities, and gave them the opportunity to earn wages.

A work orientation program for severely retarded secondary youth was initiated in the city of Rochester. This program consisted of several phases which guided students through the selection of an occupation, to actual trial job placement. The first phase of the program tested students' ability to perform work tasks dependent on perceptual motor strengths. After this phase, students' interests were determined through a work orientation component made up of 100 job samples in several occupational fields. The third phase was the actual training program in which simulated work situations were created in the areas of building and grounds maintenance, food services, lettershop, manufacturing, and day housework. Upon successful completion of the sample work tasks, students were placed in jobs in the school or community on a trial basis so that careful supervision could be maintained and evaluation procedures implemented. This program, like most other programs for handicapped students, was developed in cooperation with Vocational Rehabilitation, Associations for Help of the Retarded, advisory committees, and community agencies who provided jobs for the work experience portion of the program.

Specialized programs were developed and expanded for blind students who often needed particular equipment and training in order to acquire salable skills. The city of New York, for example, established a laboratory for blind youth where training and experience was provided in the areas of machine transcribing, typing, switchboard operation, sewing machine operation, and assembly line work. The program also provided supplementary services such as acquainting students with the public transportation system to make them self-sufficient after securing employment.

Conferences and workshops for teachers of handicapped secondary students were continually conducted for the introduction and exchange of successful techniques used in serving the handicapped. The Washington-Warren-Hamilton-Essex County BOCES, for example, held monthly meetings involving occupational teachers and academic classroom teachers for the purpose of discussing ways of providing supplementary services for handicapped students. Topics included the relation of test results to skill development, and the results of various methods of student grouping.

Other activities in which teachers of handicapped youth participated were: inservice teacher education programs conducted during the summer months at State Universities; out-of-State workshops for the development of curriculum materials for handicapped students; and student--teacher sessions designed to promote a greater understanding of the needs of the handicapped.

Teacher coordinators and occupational counseling personnel to serve handicapped occupational education students were employed in the six major cities, the Cortland-Madison County BOCES, the Allegany County BOCES, and the Nassau County BOCES. Some of their responsibilities, as noted elsewhere in this description included: placing and supervising cooperative work experience students, administering job adjustment programs, and providing individual counseling and diagnostic testing services.

A supplementary guide which will assist in further planning and implementation of occupational education programs for the handicapped is in the developmental stages. Plans have been made to take specific action in fiscal year 1973 to complete this guide which will identify, by major type of handicap, employment opportunities, physical plant adjustments, and specialized equipment needed to facilitate training.

POST-SECONDARY

GENERAL

- Goal: Diversify and expand program offerings to serve increasing numbers who need and desire occupational education at the post-secondary level.

Objective

The percent of public 2-year colleges offering occupational education in five broad program areas will increase from 57 percent to 59 percent.

Accomplishment

Data collected during the 1971-72 academic year revealed that 23, or 52 percent, of the 44 public 2-year colleges were offering occupational education in five or more broad program areas. This apparent net decrease reflects a change in program classifications in the course of refining an occupational education information system, rather than an actual contraction of program offerings. Taking this factor into account, however, no net growth took place in the direction of greater comprehensiveness in the occupational offerings at the 2-year public colleges, insofar as such growth can be measured by numbers of institutions offering five broad program areas. Significant growth did occur within the program areas, as demonstrated in the accomplishments and descriptions below.

Objective

The total number of full-time and part-time students in occupational degree programs at public 2-year colleges will increase.

Accomplishment

In 1971-72, the 2-year public colleges reported a total full-time degree enrollment in occupational programs of 60,500, an increase of 4,000 over the number reported for the previous academic year, but considerably under the 66,650 projected in the fiscal 1972 State Plan. The colleges reported 33,200 part-time students enrolled in degree programs. This figure represents an increase of 4,000 over the part-time students reported in fiscal 1971, but again is far short of the 49,500 projected in the 1972 State Plan. State Plan projections have been revised in light of these outcomes of the new reporting system.

New and Expanded Post-Secondary Programs and Enrollments

Fiscal Year 1972

Table 2

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Landscape Development and Maintenance	1		25	
Natural Resources Conservation		1		24
Fisheries and Wildlife Technology		1		15
Farm Equipment Repair	1		30	
Total Agriculture	2	2	55	39
DISTRIBUTION				
Hotel Management		1		150
Retailing		1		10
Parks and Recreation Management		1		35
Total Distribution		3		195
HEALTH				
Orthopedic Assistant	1		33	
Cardiology and Pulmonary Care	1		280	
Mortuary Science	1		26	
Therapeutic Recreational Leader	1		24	
Medical Laboratory Technology		4		260
Optical Technology		1		60
Biomedical Engineering Technology		1		25
Dental Laboratory Technology		1		31
Nursing		4		422
LPN		2		65
Biological Laboratory Technology		1		15
Health Services		3		220
Clinical Laboratory Technology	1		25	
Nursing Aide		1		20
Auto-tutorial Laboratory for Nursing Students		1		350
Total Health	5	19	388	1,468

Table 2 (Continued)

PROGRAMS	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
HOME ECONOMICS				
Food Service Supervisory Training		1		50
Early Childhood Education Aide	1		55	
Family Day Care Aide	2		60	
Total Home Economics	3	1	115	50
BUSINESS AND OFFICE EDUCATION				
Typing		2		500
Equipment for Accounting Laboratory		1		725
Computer Systems Technology		1		1,450
Data Processing		3		320
Medical Secretarial		2		105
Secretarial Science		4		995
Computer Science		1		120
Accounting		4		590
Office Practice		1		40
Civil and Public Service		1		249
Computer Operator		1		15
Stenography	1		25	
Business Management	1	2	35	71
Total Business and Office	2	23	60	5,180
TECHNICAL EDUCATION				
Cooperative Education		3		705
Digital Communication		1		36
Electromechanical Technology		2		204
Civil Technology		1		60
Architectural Design		1		18
Mechanical Technology		1		28
Total Technical		9		1,051
TRADE, INDUSTRIAL AND SERVICE				
Fire Science	1		110	
Human Services	3	2	173	230
Criminal Justice	1		152	
Electronics and TV Servicing	1		12	

Table 2 (Continued)

	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
TRADE, INDUSTRIAL AND SERVICE (Continued)				
Sheet Metal Fabrication		1		70
Fashion Design		1		15
Textile Technology		1		100
Textile Fashion and Design		1		40
Police Science		1		20
Building Construction		1		60
Photography and Camera Repair	1		25	
Teacher Aide	1		200	
Engineering Drafting	1		28	
Automotive and Electronics Repair	1		50	
Electrical Appliance Repair	1		25	
Civil Service Preparation		1		1,000
Graphic Arts		1		45
Media Technician		1		25
Drafting	1		25	
Rural Electrician	1		30	
Community Service Assistant		1		25
Automotive Repair		1		230
Total Trade, Industrial, and Service	13	13	830	1,860
MULTI OCCUPATIONS				
Career Planning for Occupational Students	1		700	
Cooperative Education		2		550
Math Program for Occupational Students		1		500
Vocational Advisory Center		1		500
Job Placement Counseling		1		1,900
Urban Education for Health and Social Services Careers	1		100	
Audio-Visual Laboratory for Trade and Industrial Students		1		150
Developmental Skills Program		5		960
Guidance and Counseling		8		3,528
Orientation Program for Handicapped	2		124	
Total Multi	4	19	924	8,088
TOTAL	29	89	2,372	17,931

Description

In 1971-72 opportunities for post-secondary occupational education in New York State were increased through the opening of a new community college offering occupational programs, and through continued development, expansion, and improvement of occupational programs and supportive services, primarily at 2-year public colleges and urban centers. Particular emphasis was placed on adapting program offerings to the changing occupational needs of society; meeting the special needs of disadvantaged and handicapped students; creating greater opportunity for cooperative work experience as an integral part of the educational program; and strengthening related services, such as career guidance, remedial education, and inservice education.

LaGuardia Community College in the borough of Queens, New York City, officially opened in fall 1971. In its first year of operation the college served 186 students in four business and office related occupational curriculums. The college is unique in that all of its students are engaged in cooperative work experiences as part of their educational program.

During the fiscal year, Vocational Education Amendments assistance enabled post-secondary institutions to furnish increased opportunities for more than 20,000 occupational education students. The broad range of activities supported reflects combined institutional and statewide efforts to meet more fully the diversity of needs which have emerged in recent years with the introduction of open admissions to public higher education institutions.

An important measure of this responsiveness is the number of new and expanded instructional programs being offered. In the past fiscal year, VEA support contributed to the introduction of 26 new curriculums, nine of which offer the associate degree upon completion. In addition, 68 separate curriculums received support for improvement of instruction or expansion of capacity to accommodate additional students. Of these expanded programs, 46 offer the associate degree, and the remaining 22 a certificate upon completion. As indicated in Table 2, program development and expansion was most highly concentrated in the health, business, trade and industrial, and service occupations. VEA resources were also utilized in support of remedial education, improved or expanded occupational counseling, and improved instructional technologies, which provided for the educational needs of more than 9,200 students in degree or certificate occupational programs.

The following brief descriptions of degree programs reflect the use of VEA resources to meet particular occupational needs of the State and its various regions. Other new degree programs are described in the ADULT and HIGHLIGHTS OF MODEL OR EXCEPTIONAL PROGRAMS sections of the report.

Support was provided for the summer phase of a parks and recreation management program at Delhi Agricultural and Technical College, making it possible for students to combine paid work experience made available by the Long Island Parks Commission with after hours classroom instruction.

Suffolk County Community College developed a new degree curriculum for therapeutic recreational leaders. This program is designed to prepare students in the specialized skills, knowledge, and attitudes necessary to implement recreational programs for the ill, the handicapped, and the aged.

Cobleskill Agricultural and Technical College added an environmental technician training option to existing programs in food service technology and fisheries and wildlife technology. The program will emphasize waste water treatment as part of the broader field of environmental technology, and will lead to opportunities for employment as technicians in State and municipal agencies.

Fashion Institute of Technology in New York City received a VEA grant to purchase equipment for its textile technology program. This new equipment will enable students to learn through direct experience the processes and procedures for testing and analyzing textiles or fibers. In response to recent changes in industry requirements for employment, the college has adapted its textile program to create the option of specialization in the technical aspects of textiles and fashion design.

At Onondaga Community College a new digital communications option in the electrical technology curriculum offers training in computer circuitry and qualifies graduates for positions with manufacturers as field technicians, maintenance technicians, and circuit designers.

Objective

The total number of students in occupational certificate and diploma programs at public 2-year colleges will increase.

Accomplishment

In the first year of full reporting under the Occupational Education Data Subsystem, the 2-year public colleges reported 2,377 full-time students and 7,458 part-time students in certificate and diploma programs during 1971-72. These reported enrollments considerably exceed the 4,200 total projected in the 1972 State Plan. State Plan projections have been revised in light of these outcomes, and can henceforth be stated in terms of both full-time and part-time students.

Description

In the past fiscal year, VEA support contributed to the introduction of 17 new curriculums and the expansion of 22 existing curriculums leading to certificates upon completion. Certificate programs, ranging from 6 months to nearly 2 years in duration, offer preparation for a wide range of occupations requiring less than the full associate degree for entry. Certificate programs can also serve as an introduction to post-secondary occupational education, to be followed by enrollment in degree programs.

A number of certificate programs are described in the POST-SECONDARY and ADULT DISADVANTAGED sections of this report, and in the HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS section. The following are brief descriptions of representative certificate programs serving the general population in different areas of the State.

Cobleskill Agricultural and Technical College developed a 6-month certificate rural electrician training program, to prepare persons for work in rural communities, servicing agricultural equipment such as feeding systems, milking systems, and farm building ventiliation equipment. This program was offered in response to many requests for persons trained in electricity to serve in local communities.

VEA support enabled Alfred Agricultural and Technical College to expand enrollment in its auto specialist training program by 190 students, and to improve the quality of instruction. More than 20 of the 71 second year students enrolled in this program are BOCES graduates who were admitted with advanced standing.

An extensive study of existing certificate and diploma programs at seven public 2-year colleges was conducted during the fiscal year. The outcomes of the study are summarized under the final objective in this section of the report.

Objective

Increasing numbers of students in a wide range of occupational programs will engage in work experiences coordinated with their academic experience.

Accomplishment

The 2-year public colleges reported 1,802 occupational education students engaged in cooperative work experience activities during 1971-72. This is considerably short of the 3,000 projected in the fiscal 1972 State Plan, and judging from other data sources, may not be a complete reporting of the cooperative enrollment. Reports from department personnel supervising 2-year college programs indicate that some 1,250 additional students were served in cooperative programs during the academic year, which should bring the total closer to the 3,000 projected.

Description

VEA support assisted five post-secondary institutions to introduce or expand cooperative work experience programs during 1971-72. Curriculums modified to include a cooperative education component were engineering technology, business, hotel technology, human services, and parks and recreation management. Planning is underway at several campuses to implement cooperative work programs during the coming year.

Nassau Community College implemented cooperative education as a component of its engineering technology program, which comprises civil technology, instrumentation technology, industrial technology, and data processing. Seventeen companies assisted in providing jobs for students, while representatives of other companies have expressed interest in providing future job opportunities. As an outgrowth of the enthusiasm shown for this program by students, other departments within the college are now exploring the possibility of incorporating work experience into their programs.

Queensborough Community College has developed a cooperative education component to be offered in four curriculums in the areas of engineering technology, business, and health. Emphasis in job placement will be on securing employment where there is the greatest need for trained employees and the most opportunity for disadvantaged students.

As noted earlier, LaGuardia Community College provided cooperative work experiences for all of the 186 occupational students enrolled during its first year of operation.

Objective

The number of students attending private trade and business schools will increase.

Accomplishment

The number of students attending private trade and business schools increased from 91,800 in fiscal year 1971 to 95,045 in fiscal year 1972.

Description

Two important developments affected many of the private trade and business schools during 1971-72. Under new provisions of the Board of Regents, 20 proprietary institutions were authorized to confer the Associate in Occupational Studies degree in approved 2-year programs.

During 1972, the Legislature enacted sections 5001, 5002, 5003, and 5004 of the Education Law, which will now require all private trade and business schools not authorized to confer degrees to be licensed or registered by the Department. The new sections redefine the Department's responsibilities for licensing, registering, and regulating these schools, and new guidelines for licensing and registration are currently in preparation.

- Goal: Increase the number of students who begin and successfully complete post-secondary occupational education programs.

Objective

The number of students successfully completing degree and nondegree programs in occupational education will increase.

Accomplishment

The 2-year public colleges reported 15,672 completing degree programs and 1,329 completing nondegree programs during 1971-72, as compared with 26,950 degree completions and 3,200 nondegree completions projected in the 1972 State Plan. Projections for 1973 have been revised in accordance with these outcomes.

Description

A variety of measures are being supported to increase the number and percentage of occupational education students who successfully complete their programs at 2-year public colleges and urban centers. These include: improvement and expansion of occupational guidance and counseling services; increased utilization of developmental skills programs in reading and mathematics; and greater emphasis within inservice education on personal and interpersonal relationships, humanistic education, guidance and counseling, achievement motivation, and innovative instructional techniques and technologies.

One trend has been the adoption on several campuses of the practice of coordinating guidance and counseling functions with developmental skills programs serving occupational students. Among the programs initiated with VEA assistance are developmental reading for technology students at New York City Community College, developmental mathematics for engineering technology students at Nassau Community College, and a reading skills program for occupational students at Niagara Community College. The colleges are assuming the costs of operating these developmental programs after VEA support is terminated.

Further description of activities designed to assist post-secondary occupational students to successfully complete their programs are included below under post-secondary objectives relating to guidance, inservice education, and the disadvantaged.

- Goal: Improve articulation between secondary and post-secondary occupational education programs.

Objective

The number of curriculums articulated locally between BOCES area centers and 2-year public colleges will increase.

Accomplishment

Five new articulation projects were initiated between 2-year public colleges and local secondary agencies, and developmental work continued on existing articulation projects.

Description

Continued efforts to encourage cooperation between secondary and post-secondary agencies resulted in closer articulation of a variety of programs between 2-year public colleges and BOCES and local schools.

A coordinator assigned to the health technologies at Orange County Community College is assuming responsibility for articulating college curriculums with related BOCES programs to ensure subject matter continuity. At Dutchess Community College, architectural design students worked closely with students enrolled in the building trades programs at the BOCES center in remodeling a local building as part of a joint project. Tompkins-Cortland Community College, as part of its new degree nursing program, will develop an articulated curriculum providing for the transfer of BOCES licensed practical nursing graduates who wish to continue their nursing education at the post-secondary level. Automotive services curriculums at Delhi and Alfred Agricultural and Technical Colleges were articulated with programs at neighboring secondary agencies.

Further developmental work took place in articulation of curriculums in retailing, engineering technology, and health at Onondaga Community College. As part of this cooperative arrangement, students enrolled in these programs at several high schools which shared in developing the project will have the opportunity to transfer to the college.

In a continuing articulation project at Adirondack Community College, certificate program students in data processing, machine trades, drafting, secretarial studies, and electronics received skill training at the BOCES center, which makes existing facilities and resources available to serve college programs.

A study to identify factors determining success or failure of articulation efforts is currently underway. Progress to date is described under the final objective in this section of the report.

- Goal: Strengthen the preparation of occupational education teaching staffs at 2-year public colleges.

Objective

The number of post-secondary occupational education teachers engaged in inservice programs will increase.

Accomplishment

The wide range of inservice education programs conducted under the Vocational Education Amendments during fiscal year 1972 involved a total of 849 occupational instructors and staff members in 2-year colleges.

Description

A total of 354 faculty and staff members participated in an inservice education program conducted by the Institute for Humanistic Education near Albany. This program was designed to improve skills in classroom instruction and to develop techniques of organizational development to enhance personal and interpersonal relationships as group members.

A program to upgrade the knowledge of guidance personnel, conducted by the Student Personnel Development Center at the State University of New York at Albany, involved a total of 66 participants. Four workshops were held during the year, covering such topics as: assisting minority group members to successfully use college and urban center occupational offerings; current issues and problems in occupational guidance; the use of career guidance and placement testing instruments; and ways counselors can work closely with instructional staff members to improve the occupational education of 2-year college students.

Other inservice programs at Rochester Institute of Technology and Clarkson College served an additional 94 technology instructors. Summer programs were conducted to enable these classroom teachers to gain proficiency in the use of computers for instruction, and to become more familiar with new developments in their discipline areas, primarily in business education and engineering technology.

A summer workshop at Hofstra University involved 15 instructors from various areas of the State who were attracted by the program's goals, which were: to focus on the individual needs of occupational students in order to help them successfully complete their programs; to identify ways of increasing and sustaining the achievement motivation of students; and to consider means by which supportive services can be utilized most effectively to help students achieve their goals.

- Goal: Provide adequate guidance, counseling, placement, and followup services for all post-secondary occupational education students.

Objective

The number of counseling personnel at the 2-year public colleges will increase.

Accomplishment

VEA funding support made possible the employment, on a full-time equivalent basis, of 24 additional guidance counselors at the 2-year public colleges.

Description

These additional counselors were able to provide needed services for such activities as: career planning for occupational students at Onondaga Community College; an improved admissions, placement, and remediation program for engineering technology students at Nassau Community College; a veterans' occupational center and outreach program at LaGuardia Community College; vocational choice counseling at the Brooklyn Urban Center; and an improved guidance program for cooperative education students at Bronx Community College.

Further description of trends in guidance and counseling at the post-secondary level is included under the inservice education and program completion objectives in this section.

POST-SECONDARY

DISADVANTAGED

- Goal: Serve educationally and financially disadvantaged students who need and desire occupational education beyond high school.

Objective

The number of disadvantaged students enrolled in post-secondary occupational education degree and nondegree programs will increase.

Accomplishments

The 2-year public colleges reported 3,832 disadvantaged students enrolled in occupational degree programs, and 134 enrolled in nondegree programs during 1971-72. However, Department personnel responsible for supervising 2-year college programs estimate that approximately 12,000 degree students and 2,000 nondegree students should be classified as educationally and/or economically disadvantaged according to the criteria employed in the administration of the Vocational Education Amendments.

Description

Two-year college occupational education programs and services receiving VEA support during 1971-72 served 2,066 youth and 3,180 adults who were identified as disadvantaged. Many of these students were enrolled in programs which also enrolled general population students, and received supplementary services which enhanced their opportunity to successfully complete these programs. Two representative supplementary services programs serving the disadvantaged are described under the objective immediately following. Other students were enrolled in programs specifically developed to meet the educational and occupational needs of disadvantaged persons in particular areas of the State.

Hostos Community College, for instance, which began operation in fall 1970, enrolls a very high percentage of disadvantaged students, and is also located in an area of the Bronx in New York City which has a high demand for workers trained in health occupations. During the past fiscal year, Hostos received VEA assistance for one new health-related curriculum and two expanded curriculums. The new program developed was in the field of early childhood education, and will prepare students for employment in day care agencies, nurseries, hospitals, and schools. This program, serving 55 students, includes a cooperative work experience component. Laboratory equipment was purchased to expand the medical technology curriculum, serving 50 students. A grant for purchase of equipment and instructional materials enabled the college to serve an additional 75 students in its medical secretarial program.

Monroe Community College developed a new small business management certificate program for the educationally disadvantaged. The program thus far has provided 35 students with training in basic business skills and a foundation for upward mobility in small business employment.

Dutchess Community College received VEA assistance in developing a cooperative education program in association with the New York State Department of Mental Hygiene. The program provides supportive services, including tutors, and work opportunities with the Department of Mental Hygiene.

Mohawk Valley Community College developed a new certificate program to prepare clerk typists and stenographers for civil service positions.

Nassau Community College developed a program for the guidance, admission, placement, and remediation of disadvantaged students in engineering technology. Improved testing, counseling, remediation, and placement procedures should increase the probability of academic success for 200 degree students.

Many VEA supported programs serving the disadvantaged at 2-year public colleges and urban centers are primarily focused on the needs of adults. These programs are described in the ADULT section of this report.

Objective

The number of disadvantaged students successfully completing degree and nondegree programs in occupational education will increase.

Accomplishment

As a result of the incomplete reporting noted above, comprehensive data regarding numbers of disadvantaged persons completing degree and nondegree programs are not available. Best estimates by Department personnel indicate that nearly 5,200 disadvantaged persons completed degree programs, and over 1,000 completed nondegree programs in 1971-72.

Description

As described under the post-secondary program completion objective for the general population, measures being supported to increase the number and percentage of students who successfully complete their occupational education programs include: improvement and expansion of occupational guidance and counseling; increased utilization of developmental skills programs in reading and mathematics; and greater emphasis within inservice education on personal and interpersonal relationships, humanistic education, guidance and counseling, achievement motivation, and innovative instructional techniques and technologies.

The enrollment of increasing numbers of educationally disadvantaged students under the open admissions and full opportunity policies now operative in New York State has given impetus to efforts to humanize and individualize the educational experience.

During 1971-72, Alfred Agricultural and Technical College received VEA assistance in establishing a multimedia learning laboratory for disadvantaged students in occupational certificate programs. This laboratory is described more fully in the HIGHLIGHTS OF MODEL OR EXCEPTIONAL PROGRAMS section of this report. Dutchess Community College developed a career assurance program for disadvantaged students in the retailing program. Students received added help in English, business, math, and retailing, supplemented by intensive counseling, to assist them in raising unsatisfactory grade point averages. A limited program of tutorial assistance was provided, and additional equipment obtained to revitalize and update the curriculum.

POST-SECONDARY

HANDICAPPED

- Goal: Serve handicapped students who need or desire occupational education beyond high school and who are unable to succeed in programs designed for persons without handicapping conditions.

Objective

The number of handicapped students in occupational programs at public 2-year colleges will increase.

Accomplishment

The 2-year public colleges reported 569 handicapped students served in occupational programs during 1971-72, slightly exceeding the fiscal 1972 State Plan projection of 550.

Description

Handicapped students at 2-year public colleges benefited during 1971-72 from VEA-supported activities developed and implemented to meet their unique needs.

A model summer program conducted at Queensborough Community College for visually handicapped students is described in the HIGHLIGHTS OF MODEL OR EXCEPTIONAL PROGRAMS section.

At Monroe Community College, a program also offered during the summer months provides orientation to mentally restored students to prepare them for entry into regular occupational programs.

Two other colleges expanded the scope of their services to the handicapped to include additional students in this category who might otherwise have been unable to undertake occupational training. In support of these efforts, the State Education Department, in cooperation with State University of New York and the Agricultural and Technical College at Farmingdale, sponsored a statewide conference concerning the special needs of the handicapped and resources for meeting these needs in post-secondary occupational programs.

POST-SECONDARY

MULTIPOPULATION

- Goal: Conduct research, evaluation, exemplary, and innovative activities designed to enhance the quality of the State's post-secondary occupational education program.

Accomplishment

The fiscal year 1972 State Plan identified five major research and evaluation activities specifically related to post-secondary occupational education. Progress in carrying out each of these activities is described below.

Description

One major activity identified was continued development of evaluation techniques applicable to a wide range of post-secondary occupational education functions. The primary intent of work in this area is to identify alternative evaluation strategies and methodologies, and to examine their applicability to occupational education programs at 2-year public colleges. The outcome of this activity is to be a resource book for use by 2-year college teachers and administrators in evaluating occupational education programs. The resource book will provide rationales for the use of particular evaluation strategies, as well as actual instruments and methods. The book is being prepared in cooperation with the Education Policy Research Center of Syracuse University Research Foundation. Materials will be field tested at Mohawk Valley Community College. This project is scheduled for completion in November 1972.

A second major activity was the evaluation of 2-year college certificate and diploma programs, administratively and instructionally, to identify elements of successful programs which might be incorporated into programs at other colleges. The study was conducted in cooperation with the Institute for Research and Development in Occupational Education at Cornell University. Certificate and diploma programs at seven 2-year public colleges--Alfred, Delhi, Hudson Valley, Orange, Sullivan, Tompkins-Cortland, and Ulster--were studied. Procedures employed included: on-site visits to the seven colleges to meet with central administrators and others with special responsibilities for certificate and diploma programs; and structured questionnaires addressed to students enrolled in these programs to solicit their views and comments. The outcomes of the study include 41 broad recommendations concerning administration and organization, student personnel services, instruction, regional relationships, and responsibility of State government, as they relate to the success of certificate and diploma programs. These recommendations, based on the data collected, include: "an institutional image denoting these programs as fully worthy associates of programs leading to degrees and transfers," and "thorough assessments of regional economic and employment conditions, generous open admissions procedures, skillful recruiting, personnel standards equitable to instructors in career education programs, encouragement of appropriately divergent instructional and evaluative modes for certificate programs, and careful followup studies of graduates." The full report of the investigations is being sent to all 2-year public colleges and other interested parties in the fall of 1972.

The third activity funded was a study to identify factors determining success or failure of articulation efforts between secondary and post-secondary occupational education agencies. This project is being conducted in cooperation with the Center for Research and Development in Occupational Education of the City University of New York, and is expected to terminate in November 1972. The researchers have defined articulation as, essentially, "the appropriate interchange of information between community colleges and their feeder schools bearing on curriculum issues and on information students need to make intelligent curricular and occupational choices." Under study are selected occupational programs at a 2-year public college and its leading feeder schools in each of the six major cities. Through a number of data collection procedures--site visits, interviews and meetings with college personnel and jointly with high school--college personnel, examination of college catalogues, analyses of student transcripts, and a variety of questionnaire instruments aimed at staff and students--information is being collected which describes the recent and current status of articulation efforts in the six cities, and the perception and judgments of school personnel about the feasibility and merits of expanded articulation efforts. The information collected is expected to furnish a basis for recommendations concerning articulation processes and activities applicable beyond the six groups studied to school-college articulation in general. Issues on which information is being collected include: extent of curricular overlap and means of reducing it; extent and nature of occupational and curricular information brought to the attention of students as a basis for intelligent curricular and occupational choices; and collegiate programming of students in the light of their high school backgrounds.

A fourth study has been designed to determine ways in which post-secondary technical occupational programs might recruit greater numbers of potential 2-year college students. The study is being conducted in cooperation with the Educational Policy Research Center of Syracuse University, and is scheduled to terminate in November 1972. Considerable progress was made before the close of the fiscal year. Mohawk Valley Community College agreed to cooperate with the project, and preliminary discussions took place with the college's technical faculty. An individual was identified to prepare a paper on innovative programs and intervention strategies designed to alleviate recruitment problems. Sources in the United States Department of Labor, the National Science Foundation, and the American Academy of Arts and Sciences have provided background data on national trends in engineering-related enrollments and projected manpower needs. The Research Center developed a set of alternative hypotheses to explain the recruitment data under investigation. These will provide a basis for future discussions with MVCC and the Education Department. A first draft of a literature review paper identifying factors bearing on the problems has been completed.

The fifth activity identified was a continuation of research which explores new approaches to curriculum development and the redesigning of existing courses and curriculums to capitalize on new educational technology. The intent of this project is to develop a resource manual on the potential and limitations of various technologies in community college curriculums. The project is designed, not to prescribe, but to make available to potential users data on certain technologies. In addition, the project will make available to community college personnel a synopsis of ongoing programs in New York State that are utilizing technologies in innovative ways. Progress as of the end of the fiscal year included: first draft papers on computers in education, dial access, films, film-strips and slides, and audio tape; and near completion of first draft reports on learning laboratories and cable TV. Each report is approximately 15 pages and includes a description of the technology, a review of pertinent research, some alternative uses of the technology, and suggestions for specific uses in community colleges. Remaining work includes: a compilation of ongoing programs; a report on programmed instruction and other print possibilities; a report on simulation/gaming; a report on educational satellite possibilities; and preparation of the final resource manual. This study is being conducted in cooperation with the Education Policy Research Center of Syracuse University, and is scheduled for completion in November 1972.

ADULT

GENERAL

- Goal: Serve adults in the labor force who require training or retraining to gain skills necessary for adjustments to technological change or for employment upgrading.

Objective

Increase the number of adults served by occupational education programs.

Accomplishment

The Annual Report for fiscal year 1971 reported 121,146 adults enrolled in occupational education programs. During fiscal year 1972, adult enrollments increased to 130,270. Of this total 20,145 were enrolled in the BOCES centers, 60,240 in the six major cities, 14,780 in the local secondary schools, and 35,105 in the 2-year public colleges.

Description

Occupational education programs for adults were offered for the first time at the Western Delaware Area Occupational Center. A student interest survey and recommendations from the advisory committee provided the basis for the development of six new occupational education courses. They were: nurse aid training, welding, automotive tune-up, masonry, small engine repair, and drafting. A total of 149 adults were enrolled in these courses, including many disadvantaged adults.

Significant progress was made during the year in developing, improving, and expanding occupational education programs and services for adults. A total of 99 new programs, serving 2,646 adults, were offered in secondary agencies. Of these new programs, 82 were in the BOCES serving 1,983 adults, 15 in the six major cities for 629 adults, and two were in the local schools serving 34 adults. In addition, 29 expanded programs served a total of 1,366 adults.

The following table shows a further breakdown of new and expanded adult programs and enrollments in secondary agencies.

New and Expanded Adult Programs and Enrollments
Fiscal Year 1972

Table 3

PROGRAM	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
AGRICULTURE				
Ornamental Horticulture		1		50
Total Agriculture		1		50
DISTRIBUTION				
General Merchandising, General Sales, or Sales-Supporting	6		95	
Advertising Services	1		15	
Automotive and Petroleum	1		20	
Apparel and Accessories	1		20	
Total Distribution	9		150	
HEALTH				
Prevocational Curriculums	2		97	
Dental Assisting	3		66	
Nursing, Licensed Practical	14		405	
Nurse Assisting	9		185	
Home Health Assisting	1		75	
Other Health	2		12	
Total Health	31		840	
HOME ECONOMICS				
Care and Guidance of Children	1		9	
Food Management, Production, and Services	16		282	
Clothing Management, Production and Services	6		192	
Total Home Economics	23		483	
BUSINESS & OFFICE				
Bookkeeping and Accounting	2		35	
Data Processing	1	11	14	204
General Office - Clerical and Typewriting	5	3	58	158
Stenographic, Secretarial, and Related Occupations	2	2	48	45
Supervisory and Administrative Management		1		30
Total Business & Office	10	17	155	437

PROGRAM	Number of Programs		Enrollments	
	New	Expanded	New	Expanded
TRADE, INDUSTRIAL, AND SERVICE				
Prevocational Curriculums		1		150
Air Conditioning, Refrigeration, and Heating	4	1	140	30
Appliance Repair	2		80	
Automotive Services	2	1	135	70
Aviation Operations	1		30	
Commercial Art	1		25	
Construction and Maintenance Trades	4		166	
Graphic Arts	1		40	
Drafting	2	2	45	60
Electrical Occupations	4	1	125	39
Electronics	2		95	
Machine and Metal Industries	1	1	70	70
Textile Production and Fabrication	2	1	67	20
Other Trade, Industrial, and Service		3		440
Total Trade, Industrial, and Service	26	11	1,018	879
TOTAL ALL PROGRAMS	99	29	2,646	1,366

Additionally, the 2-year public colleges served 890 adults through six new and five expanded programs.

In expanding and improving adult programs during the 1971-72 school year, the particular needs of students enrolled, and the needs of local businesses and industries were major considerations. Greater emphasis was placed on increasing the public's awareness of occupational education course offerings, through new brochures and informational bulletins.

As in previous years, various scheduling arrangements were made to offer programs at convenient times for adults; late afternoon, evening, and summer sessions were conducted as well as many Saturday classes. Several area occupational centers began operating daytime programs for out-of-school youth and adults. Westchester BOCES #2, for example, introduced a daytime adult program in practical nursing. Sixteen students were selected on the basis of their achievement on the National League of Nursing Examination. The Washington-Warren-Hamilton-Essex BOCES enrolled 23 adults in the full-time occupational day school programs of welding, radio and television repair, auto mechanics, auto body repair, cosmetology, office practice, and data processing. Depending on available space, ability, and interest, adults were placed in the daytime or evening programs operated by the Nassau County BOCES.

In all cases, existing secondary facilities and programs were utilized to serve increasing numbers of adult students.

Another type of scheduling arrangement to accomodate adults was made at LaGuardia Community College. A new secretarial training program offered students the opportunity to study at home, using a variety of learning materials such as tape cassettes.

With the cooperation of business, industry, and labor, many new programs were developed during the year to meet individual community needs. The Jefferson County BOCES established a new program in modern machinery methods, primarily for employees of a local corporation. The Herkimer BOCES established a new program for data recorder operators due to the formation of a new subsidiary data science corporation in the area. Television servicing was added on an experimental basis at the Genesee-Wyoming Area Occupational Center. The program was highly successful in meeting the needs of a local industry.

LaGuardia Community College offered a new program for health paraprofessionals which included training in emergency treatment of coronary and pulmonary disease patients. This training filled a need for skilled persons to serve in intensive care units at city hospitals with staff shortages. Classes were held evenings and Saturdays in a local hospital and at the college. A new licensed practical nurse program was conducted at Orange County Community College to upgrade the knowledge and skills of employed nurses and to provide refresher training for those unemployed. The program was developed in cooperation with area health leaders, and helped to meet the demand for trained nurses in local hospitals. At Monroe Community College, a new degree program was offered in fire science for firefighters employed in the Rochester Fire Department and other units in surrounding counties. Instructional techniques were established to increase competencies and skills which lead to more responsible leadership positions.

Other new programs provided related work experience for apprentices. In the occupational field of carpentry, for example, Monroe BOCES #1 developed both day and evening programs for apprentice carpenters, and the Orleans-Niagara BOCES worked with the carpenters' union in the development of a new program. In the city of Rochester, an apprenticeship program was developed for asbestos workers after union representatives reviewed and recommended the use of facilities at Edison Technical and Industrial High School. The Nassau County BOCES initiated several new apprenticeship programs for the plumbers, sheet metal workers' and painters' unions, and the tool and diemakers', and machinists' associations. Erie Community College established a program in cooperation with a local trade union and its apprenticeship committee to provide training in sheet metal fabrication for the area's industries. Students were selected by the union and instructed at the college. Equipment used in this program was also available to students in regular programs.

Many areas of the State conduct periodic surveys to determine the need for adult occupational education programs. The city of New York surveyed training needs through the initiation of a reporting system. Teachers in charge of evening trade schools and occupational advisory boards reported projected needs for training in the various areas serviced by their schools and annexes.

To determine student interest and ability, and to advise adults of manpower requirements, more intensive counseling and testing programs were conducted during 1971-72. The Western Monroe County Area Occupational Center developed a special counseling program for adults. It involved informing adults of job openings and requirements, and evaluating their present skills. The city of Buffalo improved its occupational counseling program by the addition of an occupational specialist. Through evaluation, testing, and personal interviews, the specialist was able to gain knowledge of student goals and abilities which formed the basis for advising adults of programs best suited to their needs. In other instances, centers improved their counseling programs for adults by devoting additional time to screening, and administering appropriate tests to enrollees.

Besides counseling and testing as enrollees, many adults who complete programs are in need of guidance to assist them in making the transition from school to work. Nassau County BOCES initiated workshops and individual and group sessions to prepare adults for employment. The program was offered on a continuous basis to all occupational education students, and included role playing, field trips, and instruction in interviewing, grooming, and work habits. Eight hundred students participated.

A factor contributing to the development of organizational structures for comprehensive continuing education programs was the addition of 10 full-time adult occupational coordinators. Some of their responsibilities included recruitment, publicity, scheduling, planning needed programs, guidance, placement and followup, staff supervision, and general coordination and leadership of the total adult program. The coordinators were employed in the following areas: Westchester County BOCES #2; Delaware-Chenango-Madison-Otsego BOCES; Oswego County BOCES; Putnam-Westchester BOCES #1; the City of New York; Orange County BOCES; Monroe County BOCES #2; Nassau County BOCES; Suffolk County BOCES #2; and the Broome-Delaware-Tioga BOCES.

- Goal: Strengthen preparation of adult occupational education teachers.

Objective

Increased numbers of adult occupational education teachers will participate in an inservice activity each year.

Accomplishment

Two inservice teacher education programs were conducted for teachers and supervisors of adult occupational education programs. Three Saturday sessions were offered in New York City serving 43 persons, and a 3-day workshop was held in Syracuse with 26 staff members in Region 12 participating.

Description

The two preliminary inservice teacher education programs conducted during 1971-72 were designed to provide the basis for planning and implementation of future inservice activities. Various experimental techniques were utilized, and the programswere thoroughly evaluated. The Northeast Area Manpower Institutes for Development of Staff (AMIDS) provided the instructional services for both programs, using an interdisciplinary approach with broad topics such as curriculum development, evaluation, and the nature and needs of the adult learner. The programs included both lecture presentations and group work sessions. Two different types of scheduling arrangements were made: one program operated a session each week for a period of 3 weeks; the other program conducted three consecutive sessions with housing provided for participants. As a result of extensive evaluation by both the Education Department and the program participants, several conclusions were drawn for the development of further programs. Some of the conclusions were: workshops proved to be more comprehensive when held in consecutive sessions; informal group sessions were very useful in stimulating the exchange of ideas; topics should be more specifically defined, dealing with problem-solving according to teacher needs; workshops should be developed with input from teachers in the workshop localities.

In view of these recommendations, a series of spring preplanning leadership conferences were conducted on a regional basis throughout the State to focus on the development of inservice activities for teachers and supervisors of adult occupational education programs. Particular emphasis was placed on planning specific activities for the 1972-73 school year. Definite plans have already been made for proposal development in many areas of the State. Activities in other geographic localities will continue to be planned in 1972-73.

ADULT

DISADVANTAGED

- Goal: Serve disadvantaged adults, including: unemployed and underemployed adults, particularly those in geographic areas where unemployment and underemployment rates are highest; out-of-school youth, including high school dropouts, recent high school graduates, and college dropouts, particularly in areas where dropout rates and youth unemployment rates are highest.

Objective

Increase the number of disadvantaged adults enrolled in occupational education.

Accomplishment

According to the Occupational Education Data Subsystem, 10,981 disadvantaged adults were enrolled in occupational education programs during fiscal year 1972. Since a large percentage of the persons enrolled in adult occupational education programs are either underemployed or unemployed, and therefore disadvantaged, the State Education Department estimates that the adult disadvantaged enrollment is closer to 30,000, or approximately 25 percent of the total adult enrollment. However, many of the reporting agencies do not as yet have recordkeeping systems which enable them to accurately identify the economic, educational, and/or social characteristics of adults enrolled in occupational education.

Description

Secondary agencies offered a total of 23 new programs during 1971-72, serving 671 disadvantaged adults. Of these programs, 14 were in the BOCES area centers, six were in the six major cities and three were in the local educational agencies. Five programs were expanded during the year to serve an additional 350 adults.

The public 2-year colleges served a total of 3,180 disadvantaged adults through 14 new and 12 expanded programs.

Programs, services, and instructional techniques were designed to reach segments of the population such as high school dropouts and out-of-school youth without salable skills, underemployed adults, and highly mobile migrant workers. New and expanded programs were located primarily in large cities, BOCES centers and public 2-year colleges adjacent to metropolitan areas, and other geographical areas with overall high unemployment.

A new certificate program was established during 1971-72 at Erie Community College to train inner-city disadvantaged adults in principles and practices of business management. Classroom instruction was combined with on-the-job experience to prepare students for positions in middle management with local retailers, manufacturers, and service industries such as banks and insurance firms. Similarly, the Borough of Manhattan Community College expanded a program for inner-city disadvantaged minority group members, which provided instruction in the fundamentals and practices of small business ownership. Local business leaders and advisory committees assisted in program operation and guidance.

A pilot project was initiated at the St. Lawrence County BOCES to serve unemployed out-of-school youth, particularly high school dropouts. Through a joint effort with the Neighborhood Youth Corps, the Northwest Technological Center in Ogdensburg provided related occupational instruction for a work experience program. In addition to assisting students in need of supplementary training, class work involved preparing students to function in a work situation. Students were aquainted with job applications, time sheets, inventory control, labor laws, and social security.

Flexibility in scheduling was an important component of the programs for disadvantaged adults. Through cooperative efforts of employers and educational agencies, many adult enrollees were able to maintain jobs while receiving further training. In the city of Albany, for example, a licensed practical nurse program was initiated to upgrade the skills of nurse aides and orderlies, and to meet the staffing needs of hospitals and health care facilities in the area. With the cooperation of four major hospitals, adults participating in this program maintained their jobs while receiving a combination of classroom and hospital training. The employment status of all students remained the same while enrolled in the program, and upon graduation, placement in nursing positions was assured.

Other types of scheduling arrangements made occupational programs more readily accessible to disadvantaged adults. Generally, programs were recycled throughout the year permitting adults to enter a program at any time. In many instances, instructional sites were added or relocated to alleviate transportation problems and allow more disadvantaged adults to participate in occupational programs. Nassau County BOCES, for example, expanded course offerings in health, business, occupational home economics, and trade and industrial education, which were designed to serve high school dropouts, out-of-school youth, and adults. Short intensive courses of 8 to 20 weeks were utilized and persons were able to enroll at any time during the year. The city of New York initiated programs at several new instructional sites to encourage an increased number of disadvantaged adults to participate in training programs. Classes in office and secretarial skills, for instance, were offered in 12 schools, using existing training facilities. A series of 30 2-hour sessions were conducted evenings, and Saturday and summer classes were also available. The Oswego County

BOCES varied its adult program schedule by offering programs during the day for those not employed, or those with evening working hours. The BOCES is now in the process of attempting to furnish day care facilities where adults can bring their children while attending classes.

Programs for disadvantaged adults were frequently planned and operated in cooperation with business and industry. Due to manpower shortages in the health fields, several programs were developed to train disadvantaged adults for positions in hospitals and health care facilities where specific needs were identified. The city of Syracuse responded to a critical need for health workers through the expansion of a licensed practical nurse program. Local hospital workers were encouraged to upgrade their skills by enrolling in this nursing program. Hospital facilities were used to provide a portion of the training. Similarly, the Rochester Urban Center instituted a program at the request of hospital administrators to upgrade employed nurse aides. After completing the courses offered, adults were able to continue their education in licensed practical nursing and associate degree in nursing programs at Monroe Community College. The city of New York offered another type of health program to train disadvantaged adults for jobs as paraprofessional health education assistants in local schools. Adults were instructed in preparing school children for physical examinations, and directing pupils toward receiving appropriate medical care.

A new certificate program was conducted at Westchester Community College to upgrade the skills of day care center employees, and allow them to achieve higher status as paraprofessionals. The program of instruction was designed to meet the needs of employers and employees for improvement of the overall quality of services offered at day care centers in the community.

The curriculum division in the city of Buffalo has been working with members of industry and teaching staff to develop course outlines which will meet the needs of underemployed adults as well as business and industry. Six course outlines in trade and industrial education were prepared to operate for 10 weeks on a 3-hour per day, one night per week basis.

Progress was made during the past year in serving migrant workers. The Livingston-Steuben-Wyoming BOCES continued the second year of its migrant occupational education program. Thirteen sessions were conducted, with an average of 12 migrants attending each session. The program consisted of auto mechanics, welding, and nurse aide training. The Erie BOCES #2 initiated new summer programs primarily to serve migrants and Indians with limited formal schooling. Programs of instruction included agricultural mechanization, basic electricity, food services, appliance repair, and secretarial practice. The Wayne Occupational Education Center conducted a 16-week program to provide migrants with the opportunity for more career choices. Behavioral objectives were used for instruction in agriculture, health services, carpentry, and auto mechanics. Transportation to the center was provided. A part-time, nondegree program was offered by Orange County Community College to upgrade the skills of migrant farm workers. Training was provided for 30 students in maintenance, repair, and operation of farm machinery.

The New York State Center for Migrant Studies at Geneseo instituted a planning project to assess the total needs of migrants in New York State, the occupational resources in the public and private sector, and employment opportunities. A planning committee composed of migrant workers, representatives of industry, and occupational educators outlined program components and supportive services for the adult migrant worker population. An additional aim of the project was to develop interstate cooperation for a comprehensive occupational education program for migrants.

Efforts also have been made to serve other groups of persons with special needs. The Putnam-Westchester BOCES #1, for instance, has been working with the Westchester County Commissioner of Corrections Office to increase occupational education opportunities available to inmates of the county's penitentiary.

Programs and services were provided for many Vietnam-era veterans needing training for employment. LaGuardia Community College established an advisory program which offered occupational guidance and counseling to veterans. As a result of this program, many participants enrolled in occupational education at 2-year colleges. Similarly, St. Lawrence BOCES reported that during 1971-72, courses, schedules, and instructional materials were adjusted to meet individual needs of returning veterans.

- Goal: Assist out-of-school youth and adults living in urban and economically depressed rural areas in improving their knowledge and skills as consumers, homemakers, and family managers.

Objective

Increase enrollments in consumer and homemaking education at the adult level.

Accomplishment

A total of 78,051 adults were enrolled in regular adult consumer and homemaking programs, and in specialized short-term and comprehensive programs designed to meet the needs of the disadvantaged population in economically depressed areas. Of this total, approximately 43,000 were disadvantaged.

Description

Short-term consumer and homemaking programs were developed and expanded, reaching 2,000 disadvantaged adults in 16 urban and rural areas of the State. Short-term programs were characterized by independent but sequential sessions, scheduled daily or several times a week for a block of time. Community facilities were used such as churches, neighborhood centers, schools, state hospital meeting rooms, and adult basic education centers. Paraprofessional personnel were often employed to assist in recruitment, to make presentations, and to care for children of participants.

The Sodus Central School in Wayne County, for example, conducted a short-term program for resettled migratory adults. The program was designed to help this segment of the population with low socio-economic status to improve their living conditions and home management, and to increase their ability to become more effective consumers. Three classes were held three nights a week to serve 45 migrants.

The Broome-Tioga County BOCES initiated a short-term program for economically and educationally disadvantaged adults. A teacher--coordinator traveled to various facilities throughout the community and scheduled classes with several groups meeting once a week for 8 weeks. Participants attended classes regularly, displayed positive changes in attitude, and exhibited ways in which they had applied newly acquired skills to home situations.

The Port Washington Public Schools in Nassau County expanded a short-term program for disadvantaged adults by the addition of evening sessions. A facility was provided where adults were able to receive instruction in homemaking skills two evenings per week. The instructional content included interior decorating, clothing construction, and furniture refinishing.

Many short-term programs also were initiated to serve senior citizens dependent upon a low income. Instruction included subjects such as purchasing habits, foods and nutrition, and consumer protection.

Objective

Increase to 35 the number of programs designed to improve homemaking and consumer competencies in economically depressed areas.

Accomplishment

Comprehensive consumer and homemaking programs were offered at 43 facilities in 27 separate locations.

Description

During 1971-72, comprehensive consumer and homemaking programs served approximately 20,000 disadvantaged adults. New programs were initiated at: Broome-Tioga County BOCES; Genesee-Wyoming County BOCES; Fort Covington; Herkimer-Fulton-Hamilton County BOCES; Nassau County BOCES; Niagara Falls; and the Suffolk County BOCES #1. Programs were expanded in New York City, Rochester, Troy, and White Plains.

Comprehensive programs were offered on a continuous basis and were available in a variety of instructional sites such as walk-in centers in storefronts, community centers, housing project apartments, and mobile units. Outreach aspects of comprehensive programs brought consumer and homemaking education to established community groups. Methods of instruction included field trips, impromptu group discussions, and presentations by guest speakers.

The Herkimer-Fulton-Hamilton BOCES, for example, initiated an outreach project for rural disadvantaged adults. Groups of persons residing in remote areas were identified, and the program was transported to them. Over 300 adults were ultimately served. The program will continue in 1972-73 with the use of a mobile van containing a homemaking unit. Consumer and homemaking outreach programs also were developed in the city of Buffalo to serve inner-city disadvantaged adults. Programs were scheduled at various school sites, depending upon area needs. Adults received instruction in family relationships, home management, home furnishings, clothing and grooming, and foods and nutrition. Child care aides were often provided to enable more adults to participate in the program.

Existing comprehensive consumer and homemaking programs were improved and expanded to serve adults in both urban and rural areas of the State. The city of New York, for instance, identified three new instructional sites during 1971-72. A total of eight centers in target areas operated consumer and homemaking programs for unemployed and marginally employed adults. The centers offered services on a daily basis and were open from 9:00 a.m. to 10:00 p.m. to accommodate a large number of disadvantaged adults. Instruction was provided in child growth and development, consumer practices, maintenance of housing, equipment and furnishing, and community health.

The Steuben-Allegany County BOCES continued project FLASH (Family Living and Self Help) which was designed to reach geographically isolated, rural disadvantaged adults. During 1971-72, a self-contained mobile unit and consumer and homemaking training staff traveled to 19 areas and organized regular group meetings. Approximately 200 adults participated in the FLASH program, and 150 children of participants attended sessions. Occasionally, community buildings were used when sizable groups needed additional space.

Objective

Increase to 90 the personnel who participate in inservice opportunities which focus on appropriate content and effective approaches in teaching consumer and homemaking skills to disadvantaged adults.

Accomplishment

Fifty-four professional staff members of comprehensive consumer-homemaking programs participated in a 3-day institute conducted by the Institute for Research and Development in Occupational Education at Cornell University.

Description

A research team from the Institute at Cornell evaluated 10 representative comprehensive consumer-homemaking programs and reviewed concerns expressed by teachers and teacher aides. From a preliminary report identifying program strengths, weaknesses, and personnel problems, appropriate topics for the inservice program were selected.

The inservice program focused on subjects such as consumer protection, working with advisory committees and other agencies, continuous recruitment of disadvantaged adults, recordkeeping, developing learning packages, and inservice training for child care and teaching aides.

The facilities at Cornell University were utilized for lectures, demonstrations, review of video tapes depicting successful programs, and exhibits of resource materials. Small group sessions were conducted enabling the participants to share ideas and program practices that have been successful in working with disadvantaged adults.

ADULT

HANDICAPPED

- Goal: Provide occupational education opportunities for handicapped adults who, because of their handicapping condition, cannot succeed in occupational programs designed for persons without a handicapping condition.

Objective

Increase the number of handicapped adults enrolled in occupational education.

Accomplishment

In 1971-72, reports from secondary and post-secondary agencies indicated that 241 handicapped adults were enrolled in occupational education programs. It has been determined, however, that this figure does not reflect complete reporting, since during 1971-72, five new projects were funded to serve an additional 742 handicapped adults through new and expanded programs.

Description

Three of the large cities and two BOCES centers reported development and expansion of programs in four program areas. In addition, preoccupational programs and work placement activities were conducted to serve handicapped adults.

The Broome-Tioga BOCES conducted a program in custodial maintenance to serve handicapped adults under rehabilitation in a State hospital. Twelve adults participated and received training through classes and work experience at the hospital.

The city of Buffalo offered a new program in trade and industrial education which included instruction in automotive trades, aviation, building trades, printing, electricity, and machine trades. The program was designed to serve 100 handicapped adults with physical disabilities and/or emotional disorders. Intensive guidance and counseling, together with occupational instruction, provided handicapped adults with the skills to secure employment.

Course offerings were expanded in the city of Syracuse to serve 115 out-of-school youth and adults with mental or physical handicaps. Students were trained according to their capabilities for employment in construction crafts, equipment repair, truck driving, cosmetology, automotive repair, health care, child care, and office work. Diagnostic testing, counseling, and followup were provided.

The city of New York offered a new program at several locations for adults with learning disabilities. Training was provided in food services, clerical, health, retail bench assembly, and electrical occupations. An important aspect of the program was the employment of a teacher and assistant to instruct students in language and vocabulary related to job skills.

Frequently, supplementary services were provided to handicapped adults enrolled in regular occupational education programs. In the city of Rochester, for example, adult deaf students were able to enroll in graphic arts, machine trades, and business occupations programs, with the assistance of teacher--interpreters.

In order to help handicapped adults adjust to work situations, supervised work experience components and counseling sessions were often added to occupational programs. The Cortland-Madison BOCES employed a work placement and diversified education coordinator to serve mentally retarded adults completing occupational classroom training. Students were placed in full-time jobs, supervised on the job, and counseled or retrained according to individual needs in adjusting to employment.

Special services were offered to adults in the School for Language and Hearing Impaired in the city of New York. A program in the fields of cosmetology and health careers provided students with job training through work experience, and supplementary training in communication and appropriate personal skills.

MULTILEVEL GOALS

This section of the report describes the State's accomplishments during fiscal year 1972 in relation to a variety of goals which have implications for all educational levels.

- Goal: Assist in diminishing the barriers to employment that may be encountered by various segments of society, including the aged, handicapped, women, disadvantaged, and other minority groups who may experience job discrimination.

Accomplishment

A VEA-funded study was completed during the fiscal year in cooperation with the Maxwell School of Syracuse University for the purpose of assisting educators and others to identify and remedy discriminatory hiring practices which affect graduates of occupational education programs. The investigators analyzed followup studies and legal evidence indicating that some trained persons are not employed due to discriminatory practices. One outcome of the study is a definition of discrimination as "the use of information in employee selection which is invalid in its ability to predict satisfactory performance," and a careful explanation of each term in this definition. Another major outcome is a model which enables educators to consider any individual case and place it in perspective on a scale ranging from no discrimination to obvious and illegal discrimination. The final report on the study also contains an extensive bibliography on discriminatory hiring practices.

Analysis of enrollment data collected through the Occupational Education Data Subsystem indicates that minority group members constitute approximately the same percentage of the occupational education enrollment as they do of the overall public school enrollment. Further analysis of enrollment and followup data should assist in defining the role of occupational education in eliminating barriers to employment resulting from discrimination.

- Goal: Provide leadership to achieve goals and objectives of occupational education in accordance with Federal, State, and local policies, rules, and regulations.

Description

Federal funds were used to provide administrative leadership in occupational education through partial support of the staffing and related expenses of the State Education Department, including support of the staffing of the Research Coordinating Unit.

The activities of the State staff included administrative functions of occupational education planning and resource allocation, and consultive and supervisory services for improvement of instruction.

The Research Coordinating Unit provided consultant services to educational agencies regarding development of research activities, disseminated information and research findings in occupational education, initiated "in-house" research activities, and coordinated the occupational education research effort with other State research activities.

- Goal: Continuously reexamine and strengthen the relationship between occupational education programs and current and anticipated employment opportunities.

Accomplishment

As provided in the 1972 State Plan, during 1971-72 a VEA-funded study was undertaken by the City University of New York "to determine employer perceived minimal and optimal job competencies (skills, understanding, attitudes) for the major categories of office employment: typist, stenographer, general clerical worker, bookkeeper, office machine operator, data processing equipment operator." The initial focus of this study has been on bookkeeping, with the aim of developing a model for identifying entry level competencies in all office occupations. By the conclusion of the fiscal year, 205 firms in the New York City area and 190 firms in the upstate areas of Auburn, Batavia, and Elmira had been identified as data sources. Data have been collected and are now being analyzed. This project will continue into fall 1972.

A related activity, initiated in fiscal 1971 and concluded during fiscal 1972, was a study conducted in cooperation with Hudson Valley Community College to analyze the kind, number, and level of manpower competencies needed in the area of environmental control and health. This study was undertaken because of the rapid expansion and change which have occurred in the health occupations field over the past two decades, resulting in specialization and reclassification of job functions and responsibilities. The investigation utilized questionnaires sent to hospitals, nursing homes, medical clinics, industries, educational and governmental agencies, and health services centers, as well as field visits to health service and environmental institutions. Among the needs identified in the study were: programs to meet manpower shortages in such areas as therapy assisting, waste water treatment, community health assisting, and emergency assisting; job analyses and curriculum development in these and other areas; regionalization of health occupations education to reduce costs and expand the geographical area of service for occupations with relatively low demand; improved communications between BOCES and health services institutions and organizations; increased emphasis on general mechanical knowledge and social and psychological understanding in many health services programs.

Two major factors led to postponement of a planned study of the apprenticeable trades to determine the feasibility of apprentice programs for women. As of January 1, 1972 New York State's rules and regulations governing apprentice programs were amended to "promote equality of opportunity in apprenticeship by prohibiting discrimination based on race, color, religion, national origin, or sex in apprenticeship programs, by requiring affirmative action to provide equal opportunity in such apprenticeship programs, and by coordinating...with other equal opportunity programs." The amended law ensures the legal feasibility of participation by women in apprenticeship training programs.

A literature search identified a federally supported study being carried out by the Wisconsin Department of Industry, Labor, and Human Relations, together with the University of Wisconsin, which has the same general purpose as the study planned in New York State. It was determined that separate action by New York State should be delayed, awaiting the outcomes of the Wisconsin project.

During 1972, Department staff members, in cooperation with the State Department of Labor, completed work on a joint report describing the nature, administration, and extent of registered apprenticeship training. This report was published in May 1972.

Another development which will help to strengthen the relationship between occupational education programs and employment opportunities was the designation of a Department staff member as industry-education coordinator, with full-time responsibility for coordinating efforts to improve two-way communication between educators and employer and employee groups.

The coordinator's activities during fiscal 1972 included: dissemination of information within the educational community and to business and industry regarding the intended function of occupational education; assistance to educators and employers in developing new and expanded work experience opportunities; planning of educational opportunities which orient teachers to the needs of business and industry, through summer tours, industrial workshops, summer industrial employment, and participation in regional councils of scientific and technological societies; groundwork for establishing improved contacts with organized labor at the local level; and participation in workshops on the educational uses of community resources.

- Goal: Promote understanding and appreciation of the value of occupational education and the world-of-work to parents, students, and community.

Accomplishment

Work was completed during the 1972 fiscal year on a Directory of Occupational Education Agencies and Programs in New York State, which will be published and disseminated in the fall of 1972. This directory has been developed to provide business, industry, educational administrators, planners, and teachers, students, parents, and all other interested persons with a comprehensive picture of secondary, adult, and post-secondary occupational education programs offered by public and private agencies in New York State. The agencies offering occupational education, their addresses, and the programs they provide, are listed alphabetically by counties. Business and industrial leaders should find this directory particularly useful as a guide to the sources of skilled manpower and to the kinds of training available for employees.

In February 1972, the first issue of OVERVIEW, a newsletter concerning developments in occupational education which are of statewide interest, was published and distributed to occupational educators throughout the State. The purpose of this newsletter, which the State Education Department will publish twice a year, is to encourage and facilitate communication by sharing information about new trends and directions, outstanding demonstrated practices, legislative proposals and actions, important publications, changes in key personnel, and other significant developments. The first issue included articles on the Regents position paper, changes in teacher certification, the new research and development institutes, and modular curriculum development, as well as a staff directory of the Office of Occupational Education.

Another publication designed to improve communications in the field of occupational education is NEWSCLIPS, a compilation of articles from newspapers and other publications regarding significant and noteworthy occupational education programs and practices at the local level. NEWSCLIPS is also published twice a year by the State Education Department, and is disseminated to occupational educators and other interested groups and individuals across the State.

During 1972, the Regents Position Paper on Occupational Education, initially adopted in May 1971, continued to be a major factor in creating greater understanding of occupational education among educators and other concerned groups and individuals. This paper, which describes and endorses a continuum of career-related educational experiences, beginning in early childhood and extending as needed throughout a person's lifetime, is currently in its third reprinting. More than 15,000 copies have been distributed, a large portion of them upon request.

- Goal: Conduct research, evaluation, curriculum development, exemplary, and innovative activities designed to enhance the quality of the State's total occupational education program.

Accomplishment

Because of the number and variety of activities involved, the narrative description of accomplishments under this goal has been divided into the following items: Management Information System; Research and Development Institutes; Other Research and Evaluation; Exemplary; and Curriculum.

MANAGEMENT INFORMATION SYSTEM

During 1971-72, Riverside Research Institute, in New York City, continued to assist the State Education Department in developing and implementing a coordinated program planning, budgeting, and evaluation system for occupational education. Building upon the previous year's work of assessing the State's occupational education reporting and evaluation needs, RRI carried out a systems study at the Nassau County BOCES, working closely with Nassau BOCES personnel in studying existing operations and procedures for State and Federal reporting and for the assessment of program effectiveness. On the basis of a review of relevant occupational education literature, and the systems study at Nassau BOCES, a reporting and evaluation system was developed, and a limited test-bed of the system was carried out within Nassau BOCES. The reporting and evaluation system is designed to integrate collection, storage, and retrieval of data concerning a variety of operating functions, including attendance, test scoring, enrollment, grade reporting, placement, and followup. Beginning in Fall 1972, test-bedding of the system will be extended to the local schools of Nassau County and an eight county region in central New York.

In addition to development and testing of a reporting and evaluation system, work continued on a monitoring system designed to measure the effectiveness with which occupational education programs use available resources to achieve carefully defined objectives, and a targeting system for identifying the role of occupational education programs in relation to changing manpower needs in regions of the State. Development of these systems will continue in fiscal 1973.

RESEARCH AND DEVELOPMENT INSTITUTES

In fiscal year 1971, two Research and Development Institutes for Occupational Education were formed, one at the City University of New York, and the other at Cornell University, for the purpose of conducting studies and providing other services related to needed change in the field of occupational education. The City University center primarily focuses on urban and suburban needs; the Cornell center on rural and suburban needs.

During fiscal 1972, the City University Institute conducted seven major VEA funded projects. Three of these are described elsewhere in this report: a high school--college articulation study, described in the POST-SECONDARY section; an analysis of entry-level job competencies in bookkeeping, for use in curriculum development, described earlier in this section; and the development of teacher certification models based on performance objectives, described below under this goal.

At the request of the New York State Advisory Council on Occupational Education, the institute initiated a short term study to survey the history of articulation efforts between secondary and post-secondary institutions. This project is an adjunct to the larger-scale articulation study described in the POST-SECONDARY section. Information garnered through this study is expected to provide a basis for: preliminary assessments of the long-range outcome of previous articulation projects; designs for continuous evaluation of articulation efforts; and guidelines to aid the Education Department in decisionmaking about future articulation projects.

At the request of the State Education Department, the Institute initiated a study of optimal work experience requirements for teachers of occupational subjects in 2-year colleges. The initial focus has been on the fields of cosmetology and real estate brokerage. The study will be completed during the 1973 fiscal year.

The institute undertook an examination of the functions of eight VEA-supported counselor positions at various BOCES area centers, to gather information which will serve as a basis for recommending continuation, expansion, or discontinuance of funding for such positions.

The institute began a project to develop curriculum and materials for the training of paraprofessionals to work in day care centers. The project initially involved staff of a preschool program at the Harlem Research Center, and on the basis of success with this group was expanded to serve four other day care centers. In addition to training 60-80 paraprofessionals during the initial phase, this project will generate curriculum and materials for future training programs in this rapidly emerging occupation.

Besides these major projects, the institute provided a variety of other services including consultation, advice, and informal assistance, to the occupational education community. The institute also funded five mini-projects which would not otherwise have been feasible owing to the reduction of grants to the states for research. These projects were: the development of autotutorial mini-lessons at Nassau BOCES; a court clerk training model, at Bronx Community College; videotaped inservice learning packages for career counseling, by the Office of Teacher Education, CUNY; a feasibility study of midmanagement opportunities in the supermarket industry, at Kingsborough Community College; and a study of noncognitive pattern differences between career and transfer student dropouts and stay-ins.

The Cornell Institute for Research and Development in Occupational Education conducted three special VEA-supported research and development projects, and utilized VEA funds to support 20 additional projects. One of the special projects--an evaluation of selected 2-year college certificate and diploma programs--is described in the POST-SECONDARY section of this report.

A second special project--a conference for adult consumer-homemaking educators--is described under the consumer-homemaking objective in the ADULT section of this report.

The third special project initiated was the development of an autotutorial developmental reading program for the occupational area of business technology. This program, designed to remedy reading problems of college freshmen in occupational programs, is operating at Tompkins-Cortland Community College during fall 1972, and following evaluation in December 1972 should serve as a prototype for other 2-year colleges practicing open admissions policies.

The 20 additional projects coordinated by the Cornell Institute were entitled: the refinement of models of occupational choice; development of success predictors for secondary level students in licensed practical nursing; an autotutorial program for developmental reading in 2-year colleges; inservice training programs for teachers of adult occupational education; survey of career patterns of former apprentices in New York State; a description of placement practices in New York State public 2-year colleges; designing an informal continuing education program with family day care mothers; 2-year college training programs for correctional workers; the cooperative degree program for vocational-technical teachers; occupational education directory; occupational education information services; curriculum for preparation of structural ironworkers; farm tractor and equipment safety film; selected list of occupational education materials; tasks performed in the ornamental horticulture industry; a model for determining professional inservice education needs of secondary level occupation teachers; a study of the effectiveness of alternate systems for providing occupational education; task force on strategies for planning change in occupational and career education; assessment of the exploratory occupational education program, Northern Westchester-Putnam County BOCES; and life planning research with high school youth.

Besides these funded projects, the institute provided a variety of services to occupational educators during its first year of operation. Institute personnel assisted several public school organizations in the preparation of proposals for local occupational education projects. Other contacts included: the Monroe County BOCES II Urban Education Planning Board; several organizations concerned with youth employment in Tompkins County; the Cortland Regional Planning Committee, to consider a graduate course in community resources, as recommended by the State Education Department; and a regional meeting at Delhi in connection with their planning grant proposal for a regional counseling center.

On May 23, the Institute was host to a 1-dav meeting of occupational teacher educators from across the State. Institutions represented were the State Education Department; the City University of New York; City College of New York; SUC Oswego; College of Human Ecology, Cornell; and the College of Agriculture and Life Sciences, Cornell. Particularly beneficial outcomes were the discussion of new occupational teacher certification regulations, the exchange of research and development concerns, and the potential for coordinated efforts in the future.

During the period February 17 through May 4 the Institute conducted a formal needs assessment survey among all the public education agencies providing programs in occupational education. The sample included: 46 directors of occupational education, 46 coordinators of occupational guidance, 184 randomly selected teachers of occupational education at the secondary level, 48 district superintendents, 76 randomly selected chief school administrators, and 216 randomly selected 2-year college faculty members and administrators. A preliminary report of the survey was made to the institute's advisory council on May 5.

OTHER RESEARCH AND EVALUATION

The decision by the United States Office of Education to withhold, for its own discretionary use, half of the 1972 Vocational Education Amendments research allocation made it necessary for New York State to revise and curtail a number of planned research projects. Nevertheless, significant progress took place in a variety of research activities during the fiscal year.

New York State and Massachusetts continued for a second year their joint operation of an evaluation service center for occupational education (ESCOE), located in Amherst, Massachusetts. During fiscal 1972 this project involved faculty from 20 participating schools in each State in the writing of behavioral objectives, and provided training for these persons in methods of correlating performance based test items with behavioral objectives. In its first year of operation, the ESCOE "bank" was filled with behavioral objectives for the various occupational education programs. During 1972, the bank was filled with correlated test items in four major areas: auto mechanics, machine shop, carpentry and woodworking, and electronics. Occupational education teachers are thus able to select from the ESCOE bank appropriate evaluation measures for the curriculum they have chosen to teach. The material collected in the instructional bank is publicized to teachers through the ERIC system and through special training sessions. In fiscal year 1973, ESCOE will be located at Hudson Valley Community College, and will utilize the data base to develop curriculum materials, performance objectives, testing materials, and instructional resources. Massachusetts will conduct an independent project, also based on the ESCOE data bank.

In fiscal 1972, the Department continued the practice, initiated in 1971, of awarding mini-grants of $3,500 or less to individuals, usually occupational education teachers or supervisors, for the research and development of an innovative idea and/or the implementation of a small, relevant project in the classroom or within the school environment. Nineteen mini-grant projects were supported during the fiscal year, five at BOCES centers, eight in local school districts, four at public 2-year colleges, one at the Cornell Institute for Research and Development, and one at the State University at Buffalo. The following are examples of mini-grant projects initiated during the 1972 fiscal year: the improvement of motivational "success consciousness" on the part of occupational students; a comparative analysis of the impact of high school and junior college preparation on the vocational success of secretarial graduates; development of a demonstration program for occupationally based language arts and social science instruction within the secondary school; development of an occupational orientation package for pupils, professional staff, and parents; development of materials to effectively present a computer assisted programming of numerically controlled machine tools to vocational high school students; study of various strategies to provide practical nursing graduates entry into the second year of a 2-year associate degree nursing program; special orientation and counseling for prospective students in BOCES vocational schools; development of a pilot supervisory program for improving instruction by basing teaching strategy on statements of behavioral objectives; and a survey of employment opportunities and changing labor needs for the educable mentally retarded in Chautauqua County.

In addition, work was completed on mini-grant projects undertaken in the previous fiscal year. A final report on these projects was prepared by the Research Coordinating Unit.

As a step toward developing a long-range plan for teacher education programs, the State requested the CUNY research and development institute to undertake a study of behavioral objectives identified by occupational education teachers as characteristic of successful teaching. The investigators are able to draw upon the behavioral objectives stored in the ESCOE data bank described above. The intent of the study, which will be completed in December 1972, is to establish a more meaningful, performance-oriented basis for certification requirements.

Progress was also made toward designing an evaluative device to measure the effectiveness of BOCES occupational education programs in meeting the needs of students, employers, and society. Two comprehensive reviews of BOCES occupational education programs were conducted by State Education Department personnel, using the evaluation techniques developed by the Department in its cooperative review services during the past 10 years. Additional reviews are planned, and the findings will provide information to serve as a basis for developing an effective evaluation device geared specifically to occupational programs.

A research team from the Institute for Research and Development in Occupational Education at Cornell University continued their evaluation of 10 consumer-homemaking programs using instruments developed in fiscal year 1971. Results based on observation records, personal visits and interviews, and data supplied by each center, are now in the process of being compiled for dissemination to coordinators of consumer-homemaking programs, directors of adult occupational education, and State Education Department personnel.

Initial steps were taken to design an evaluation measure to be used in immediate and longitudinal followup studies of enrollees and graduates of consumer and homemaking education. A private research firm developed preliminary materials after conferences were conducted with representatives of the State Education Department. In fiscal year 1972 these materials will be revised and refined.

EXEMPLARY

Two planning grants were awarded to educational agencies for the purpose of developing and organizing exemplary programs designed to promote cooperation between public education, manpower agencies, business and industry, and labor.

A White Plains public school was awarded a grant to develop a career orientation program for underachieving eighth, ninth, and 10th grade students. The objective of the program is to provide students with career oriented experiences which will assist them in making realistic decisions in their high school and post-high school educational planning. In the initial year of operation, 75 students were exposed to broad samplings of career opportunities in four occupational clusters. The program utilizes multiple instructional techniques designed to enable a student to progress at his own rate. Students spend a half day in related academic components and the other half in career oriented experiences relating to automotive, clerical, electrical, and food and health services occupations, which offer the greatest employment opportunities in the area. Each student will rotate through each cluster during the 2-year period. Several community groups, agencies, and employers are involved. The BOCES area occupational center and the Manpower Development Training agency are providing assistance in program development.

The Mineola public schools were awarded a grant for an exemplary career education project encompassing grades K-12. The first year was devoted to planning and designing curriculum and to inservice education of staff members. Five stages of career development, based on student maturation, have been identified. Learning objectives have been related to these development stages. School personnel and community representatives were involved in developing the concepts and process to be utilized in developing and implementing instructional modules, which will be incorporated in the existing school program in fall 1972.

Continuing support was provided for the operational phases of exemplary programs initiated in previous fiscal years. A New York City project continued to utilize classes in electronics, health careers, business careers, and occupational orientation as vehicles for learning basic educational concepts in English, mathematics, and science, preparing students for job placement and/or further education at the post-secondary level. This program, conducted at the Park East Ruppert Center, involves cooperation with community businesses and other institutions, including Flower Hospital and LaGuardia Community College, which provide instructional support as well as work experience opportunities. Continued funding support enabled the project to expand the existing curriculums and to test a "unit skills" program (e.g. typing, drafting, first aid) on a pilot basis.

A continuing exemplary project in Nassau County involves articulation between the Nassau BOCES and Nassau Community College. The program is designed to assist disadvantaged students interested in retail management in entering and succeeding in a community college program. During fiscal year 1972, twenty students who had successfully completed the secondary level of the retail management program were engaged in an advanced 6-week summer program followed by enrollment in degree programs at the college. The college has developed instructional and counseling activities to meet the individual needs of these students.

CURRICULUM

Curriculum development activities were conducted during 1971-72 in support of specific instructional programs. Fourteen curriculum publications for the secondary and adult levels were completed:

Secondary Education

-Trade Welding Syllabus

-Trade Masonry Syllabus

-Syllabus in Automatic Data Processing 1 & 2

-Office Practice Syllabus

-Core Electricity/Electronics (experimental)

-Technical Electricity/Electronics Syllabus

-Writing Instructional Objectives Packet

Adult

-Visual Merchandising Through Display

-Fuel Systems Services

-Paraprofessional Workers in Education Settings

-Life Insurance

-Improving Clerical Office Skills

-Communications and Decision-Making (Part V of Certified Professional Secretary Series)

-Engine Lathe Operator

In agricultural education, 28 modules were prepared and tested for the emerging area of animal science, and a large number of first draft modules in the air and water resources field were revised and refined on the basis of tryout experiences in the current pilot programs. Preliminary materials also were prepared for a Directory of Modules for use by administrators and guidance counselors. An additional guide for adapting modules to the adult agricultural program was completed in draft form.

The office practice syllabus was revised to include specific student performance objectives and modules of instruction applicable to other phases of business and office education. The secretarial practice syllabus now being revised will draw upon eight of the office practice modules.

Curriculum materials designed to prepare adults for the Certified Professional Secretary (CPS) examination administered by the National Secretaries Association were partially developed. A series of six courses, numbered to correspond to the six parts of the CPS examination, will allow secretaries to upgrade their skills for positions as executive administrative assistants. Parts I-IV are currently being developed; Part V, Communications and Decision-Making, was completed.

The expansion of a half-year course in business management to a full year flexible program in business organization and management is now in progress. Modules are being developed to provide local options for the program.

Plans were formalized for the revision of the distribution and marketing curriculum. An advisory committee of leaders in business, marketing, and education assisted in identifying occupational clusters. Materials to be used in the first year program under development, identify student performance objectives, and optional modules will be written for use either in the second year program or as short-term adult programs.

Advisory and writing committee activities involving teachers, administrators, and public health personnel focused on the development of modules which emphasize basic skills and understandings common to all health occupations. Preliminary material for a core health occupations program was prepared.

To assist instructors and aides at consumer and homemaking centers, learning packages were produced with a wide variety of up-to-date materials, including appropriate instructional components for the disadvantaged adult learner. The packages contained an instructor's guide, student work materials, visual aids such as slides and overhead transparencies, and printed materials from commercial and governmental agencies. During 1971-72, two learning packages were completed: removing common stains from fabrics, and home laundering. Manuscripts were developed and are now being modified for additional packages: buying clothing, packaging for food, labels for food, brands for food, grades for food, and tips for the wise shopper.

Inservice training guides were devised to assist staff members at consumer and homemaking centers to meet the needs of the target population. Publications were released on the following topics: creating a learning environment, determining program content, motivating learning, and selecting teaching techniques.

As a followup to the experimental core electricity and electronics syllabus in trade and technical education, curriculum materials were drafted in two options: industrial electronics and controls, and electrical installation and maintenance.

A series of single machine tool publications, appropriate for both secondary and adult programs, is now being developed. The engine lathe operator curriculum guide, as noted above, was completed in 1971-72.

Multidisciplinary curriculum materials were designed for a Human Relations in Occupational Education publication. Modules were written on the topics of improving your self image, understanding the role of the supervisor, improving relations with your peers, and employee public relations.

An administrative Handbook for Cooperative Occupational Education programs was completed in 1971-72 and sent to the printer. Supplementary curriculum related information will succeed the publication to augment all types of cooperative work experience programs in the State.

Recognizing the value of curriculum materials produced at the local level, an activity involving cooperation in the development of local curriculum projects for statewide use was identified in the fiscal year 1972 State Plan. During the previous year, staffing limitations allowed only partial involvement in local projects; however, the fiscal year 1973 State Plan has made provisions for the employment of curriculum specialists in the six major cities and other areas of the State, to coordinate occupational education curriculum development activities which have statewide applicability.

HIGHLIGHTS OF EXCEPTIONAL OR MODEL PROGRAMS

SECONDARY

Flexible Laboratory Instructional Program in Business Education (FLIP)

New York City Board of Education
110 Livingston Street
Brooklyn, New York 11201

The program was designed primarily for nonbusiness education students who desired to acquire employable skills in clerical office occupations in order to immediately obtain part-time employment or full-time employment upon graduation.

A business education learning center or laboratory was organized in the participating schools. Enrolled students received desired instruction and training in one of the following skill areas: elementary typewriting, advanced typewriting, elementary shorthand, speed shorthand, filing, keypunch operation, 10-key calculator operation, or transcribing machine operation.

The laboratory functioned on a 4-period basis. Students who did not have a scheduled class could register in the program, selecting the skill activity they wished to acquire. All instructional materials were organized in 6-week units or modules, of a self-learning nature. Upon completion of a module of activity, the participating students could: terminate their training, proceed to an advanced phase of training in the same area, or elect to acquire another unit skill. Thus a student could engage in open-ended training programs of 6, 12, 18, 24, 30, or 36 weeks duration. Additionally, depending on their schedules, students would complete their modules of activity in two or even three successive periods, thereby contracting the time required. In this structure the teacher served in the role of a leader, a learning facilitator, a counselor, and a resource person. Instructional materials were organized in the format of learning activity packets (LAPS) which the students could use at their own pace.

Bilingual Skill Marts

New York City Board of Education
110 Livingston Street
Brooklyn, New York 11201

A planning project was initiated in fiscal year 1972 to help disadvantaged persons with severe English language deficiencies improve their communication skills, and increase their employability through occupational training. An occupational education project coordinator, certified as a guidance counselor, was assigned to explore and develop a plan utilizing agencies in South Bronx, Bedford-Stuyvesant, and Harlem, where centers called "bilingual skill marts" could be organized.

During the 1972-73 school year efforts will be directed toward the operation of the skill marts, where disadvantaged persons of all ages will be able to seek assistance in occupational and guidance programs. As an ongoing procedure the marts will demonstrate a variety of real work situations. Bilingual technicians will be available to provide instruction, and to answer questions whenever necessary. Exploratory opportunities and occupational programs in industries, with good employment opportunities, will be made available within the community trade schools. The regional industries will be brought into direct contact with the facilities in order to demonstrate their products, manpower needs, and opportunities for upward mobility.

Programs for the Advancement of Career Education

Syracuse City School District
409 West Genesee Street
Syracuse, New York 13202

Syracuse City School District and Onondaga Community College jointly sponsored a multi-year interdisciplinary career oriented program (PACE). The program's objective was to prepare students of high school age for careers in business, engineering technologies, and paramedical services at Onondaga Community College. Primarily, the program was designed to serve high school students of average ability but less than average achievement. These students were frequently characterized by having: poor motivation, unrealistic goals, inconsistent classwork, and sporadic attendance.

Various techniques were used to motivate and maintain the interest of these students. Teachers of English, mathematics, social studies, industrial arts, and technical subjects worked together to provide interdisciplinary instruction. The program curriculum tended to be student project oriented and developed jointly by the teachers on a day-to-day basis.

Possibility of failure was diminished in the program since scheduling was fairly flexible, designed to accommodate different rates of student progress. Additionally, individual attention was routinely provided students who were experiencing difficulties.

After-School Occupational Program

Buffalo Public Schools
Buffalo City School District
City Hall
Buffalo, New York 14202

An afterschool occupational program operated two afternoons per week in each of the six occupational and technical schools in the Buffalo public school system. Occupational instruction was available after sufficient interest had been shown in a given field, and was offered to secondary students enrolled in either the public or nonpublic schools of Buffalo.

The major objectives of this program were: to enable students to intelligently select an occupational program on the basis of their preliminary exposure to skill training, and to provide occupational instruction to students who were enrolled in academic high schools and did not have the opportunity to take occupational courses due to scheduling problems.

During the 1971-72 school year approximately 830 students attended the program on a voluntary basis. As a result of this introduction, several students enrolled in occupational or technical schools.

The Care and Training of the Standard Bred Horse

Orange County BOCES
Orange County Area Occupational Center
Erie Street
Goshen, New York 10924

This new program, initiated in the fall of 1971, was the first of its kind in the country, and was designed to provide students with training for work on stud farms and stables in the surrounding areas. Twenty-three students received instruction in horsemanship, grooming, breeding, blacksmith and veterinarian service, care and maintenance of equipment, driving, safety, and bookkeeping and accounting. Students received actual experience by grooming and training eight trotters which they ultimately accompanied to race tracks. All the students are returning for the second year of the program in school year 1972-73.

POST-SECONDARY

School Aide Training

Nassau Community College
Stewart Avenue
Garden City, New York 11530

A survey showed that seven school districts in the area of Nassau Community College employed 395 school aides of which 95 percent were high school graduates. In response to a new requirement that classroom aides obtain post-secondary training in order to qualify for career advancement as teacher assistants, Nassau Community College established a nondegree program to provide this training. The program was designed to serve 200 adults and was offered at convenient times for employed persons to participate.

Multimedia Learning Laboratory

Agricultural and Technical College at Alfred
Box 806
Alfred, New York 14802

The learning difficulties experienced by large numbers of students in the College's occupational division prevented many from completing courses, particularly those which required higher levels of reading and mathematics. In order to serve these students, a learning laboratory was established which improved study skills, reading comprehension, and mathematical ability. Curriculum related study materials were developed as part of this project. Self-instructional language materials, for example, were added to the laboratory so that food service students could gain a working knowledge of one foreign language often used in their work. An independent study course was also available for students wishing to learn the skill on their own.

Staff reports have indicated that the learning laboratory has decreased the dropout rate in certain courses, and has improved student grades.

Criminal Justice Program

Auburn Community College
Franklin Street
Auburn, New York 13021

This new degree program was developed at Auburn Community College to serve three purposes: train post-secondary students for careers in law enforcement; upgrade law enforcement personnel in the 16 communities surrounding the college; and provide inservice training for personnel employed at the State correctional institution located in the area.

The classes for correctional officers were established in cooperation with prison officials and the college staff, and included instruction in management, civil disorders, physical fitness and defensive tactics, and human relations.

Orientation Program for Visually Handicapped Students

Queensborough Community College
Bayside, New York 11364

A summer orientation program was developed for partially sighted and blind students who were previously accepted in occupational programs at various public 2-year colleges in the State. In addition to credit courses taken during the summer phase of their college work, students learned methods of study using specially designed equipment for reading texts and other printed material.

Mobility training was a component of the program, and college staff members received assistance in this training from the State Commission for the Visually Handicapped. Peripatologists were continually utilized, on a consultive basis, to assist students in overcoming problems and to provide inservice staff training.

Group guidance and counseling sessions were conducted biweekly as many students were unsure of their occupational objectives and abilities. Individual and indepth attention was provided when necessary.

The program was conducted to serve as a model and proved to be very successful in introducing and orienting visually handicapped students to college life and occupational study, which often gave them needed confidence in their ability to continue and complete occupational education programs.

ADULT

Occupational Certificate of Performance

Allegany County BOCES
Andrew F. Haynes Area Occupational Center
R.D. #2
Belmont, New York 14813

Standards of performance were established for those adult students enrolled in business courses at the Andrew F. Haynes Area Occupational Center. A "Certificate of Performance" was completed for students who desired to give employers and prospective employers information concerning their ability to perform in business occupations.

Certificates included information such as course requirements, proficiency tests administered, minimum levels of competence, and course electives completed by students. The "Certificate of Performance--Secretary," for example, identified: the number of courses successfully completed by the student; the minimum standard of words typed per minute, and words transcribed per minute; office machines used by the student; and business electives including law, economics, investments, and financial analysis, that were satisfactorily completed.

Media Technician Program

Buffalo Urban Center
Jackson Building
220 Delaware Street
Buffalo, New York 14202

A 1-year certificate program to train inner-city disadvantaged adults as paraprofessional media technicians was conducted at the Buffalo Urban Center. Media studies included the exploration of the psychological, social, and environmental impact of the forms of photography, cinematography, videography, radio, recording, and tapes.

The program was designed to train adults for employment in both educational institutions and the broadcasting industry. Excellent cooperation has been maintained with the school system, radio and television stations, and other related institutions. Currently, several job offers have been made to the students in this media technician program.

Coordinated Adult Occupational Education Programs

Nassau County BOCES
125 Jericho Turnpike
Jericho, New York 11753

The Nassau County BOCES has been coordinating adult occupational education programs provided by the local school districts. During 1971-72, 33 local districts participated in this effort. Nassau BOCES serves as a clearinghouse for the purpose of developing cooperative planning among the local directors of adult education so that the resources of the several districts combined can be in the most convenient locations and at the most convenient hours of operation.

The apprenticeship training programs offered in Nassau County are also coordinated by the BOCES. The BOCES responsibilities are: to maintain all apprenticeship forms until an apprentice has successfully completed a program; to conduct apprenticeship training programs at a BOCES facility for a union or trade association; and to aid in the development of curriculum, and supply material to an instructor upon request. As mentioned previously in this report, related apprenticeship programs were conducted during 1971-72 for the plumbers', sheetmetal workers', and painters' unions, and the tool and diemakers', and machinists' associations.

Occupational Training for Adult Migrants

Wayne County BOCES
539 East Ridge Road
Williamson, New York 14589

A pilot program in Wayne County provided migrant workers with the opportunity to acquire basic skills which lead to personal and occupational advancement. Instruction was offered two evenings per week during the summer months in the areas of agriculture, health services, carpentry, and auto mechanics. The programs of instruction were selected from the results of a regional survey of manpower needs and requirements.

As an integral part of the program, migrant workers were provided training to improve English language skills. Written and verbal communication instruction allowed migrants to become familiar with terminology of various jobs, and helped them to complete forms and applications necessary for employment. Mock situations were established to provide experiences in purchasing, safety, emergency, job applications, and citizenship. A series of slides, movies, film strips along with workbooks used in occupational instruction proved to be very effective learning techniques.

GEOGRAPHICAL DISTRIBUTION OF FEDERAL VEA FUNDS FOR OCCUPATIONAL EDUCATION BY CATEGORIES OF PERSONS SERVED

CO 71
(Carry over of FY 1971 funds)

Categories of Persons		Distribution of Federal Funds as of July 1, 1972			
		Urban	Rest of State	Total** (Urban and Rest of State)	
GENERAL	S	1,835,739	920,626	2,756,365*	
	PS	36,384	35,196	71,580	
	A	357,221	135,429	492,650	
DISADVANTAGED	S	1,065,411	95,673	1,161,084	
	PS	- 0 -	- 0 -	- 0 -	
	A	1,050,638	180,482	1,231,120	
HANDICAPPED	S	- 0 -	- 0 -	- 0 -	
	PS	32,757	39,220	71,977	
	A	569,281	55,067	624,348	

FY 72

Categories of Persons		Distribution of Federal Funds as of July 1, 1972			Unobligated Federal Funds Carried Over to FY 1973
		Urban	Rest of State	Total** (Urban and Rest of State)	
GENERAL	S	3,725,491	1,867,710	5,593,201*	513,423
	PS	1,133,025	1,095,897	2,228,922	- 0 -
	A	3,731,903	1,414,233	5,146,136	180,964
DISADVANTAGED	S	4,793,468	430,043	5,223,511	142,167
	PS	1,031,430	356,807	1,388,237	- 0 -
	A	2,405,766	413,080	2,818,846	- 0 -
HANDICAPPED	S	1,892,668	226,495	2,119,163	- 0 -
	PS	75,631	90,525	166,156	- 0 -
	A	159,849	15,446	175,295	265,546

*Exclusive of purpose 5 (construction) funds.

**The total of this column does not include an amount identified for State level ancillary services.